

## Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance

Note: Read Instructions before completing form.

### I. A. Applicant/Recipient (Name, Address, City, State, Zip Code)

Name:

Address:

City:

State:  Zip Code:

B. DUNS No.

II. Is the applicant currently receiving EPA Assistance? ☐ Yes ☒ No

III. List all civil rights lawsuits and administrative complaints pending against the applicant/recipient that allege discrimination based on race, color, national origin, sex, age, or disability. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

IV. List all civil rights lawsuits and administrative complaints decided against the applicant/recipient within the last year that allege discrimination based on race, color, national origin, sex, age, or disability and enclose a copy of all decisions. Please describe all corrective actions taken. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

V. List all civil rights compliance reviews of the applicant/recipient conducted by any agency within the last two years and enclose a copy of the review and any decisions, orders, or agreements based on the review. Please describe any corrective action taken. (40 C.F.R. § 7.80(c)(3))

VI. Is the applicant requesting EPA assistance for new construction? If no, proceed to VII; if yes, answer (a) and/or (b) below.

☐ Yes ☒ No

a. If the grant is for new construction, will all new facilities or alterations to existing facilities be designed and constructed to be readily accessible to and usable by persons with disabilities? If yes, proceed to VII; if no, proceed to VI(b).

☐ Yes ☐ No

b. If the grant is for new construction and the new facilities or alterations to existing facilities will not be readily accessible to and usable by persons with disabilities, explain how a regulatory exception (40 C.F.R. 7.70) applies.

VII. Does the applicant/recipient provide initial and continuing notice that it does not discriminate on the basis of race, color, national origin, sex, age, or disability in its program or activities? (40 C.F.R. 5.140 and 7.95)

☒ Yes ☐ No

a. Do the methods of notice accommodate those with impaired vision or hearing?

☒ Yes ☐ No

b. Is the notice posted in a prominent place in the applicant's offices or facilities or, for education programs and activities, in appropriate periodicals and other written communications?

☒ Yes ☐ No

c. Does the notice identify a designated civil rights coordinator?

☐ Yes ☒ No

VIII. Does the applicant/recipient maintain demographic data on the race, color, national origin, sex, age, or handicap of the population it serves? (40 C.F.R. 7.85(a))

☐ Yes ☒ No

IX. Does the applicant/recipient have a policy/procedure for providing access to services for persons with limited English proficiency? (40 C.F.R. Part 7, E.O. 13166)

☐ Yes ☒ No

- X. If the applicant is an education program or activity, or has 15 or more employees, has it designated an employee to coordinate its compliance with 40 C.F.R. Parts 5 and 7? Provide the name, title, position, mailing address, e-mail address, fax number, and telephone number of the designated coordinator.**

Yes.  
Kate Boyle, Deputy Executive Director.  
434-202-4018. kate@appvoices.org  
812 E High St.  
Charlottesville, VA 22902

- XI. If the applicant is an education program or activity, or has 15 or more employees, has it adopted grievance procedures that assure the prompt and fair resolution of complaints that allege a violation of 40 C.F.R. Parts 5 and 7? Provide a legal citation or Internet Address for, or a copy of, the procedures.**

Each employee of Appalachian Voices has the opportunity and responsibility to appeal what they consider an unfair working condition or a problem with job responsibilities. A grievance involving suspension or termination must be submitted in writing directly to the Executive Director within five (5) working days following receipt of notice of the suspension or termination. Complaints pertaining to the general level of wages, wage patterns, fringe benefits, or other broad areas of financial management and staffing, are not an issue to be processed under this grievance policy and are deemed not to be a grievable issue.

**For the Applicant/Recipient**

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. I assure that I will fully comply with all applicable civil rights statutes and EPA regulations.

A. Signature of Authorized Official

Kate K Boyle

B. Title of Authorized Official

Deputy Executive Director

C. Date

03/25/2022

**For the U.S. Environmental Protection Agency**

I have reviewed the information provided by the applicant/recipient and hereby certify that the applicant/recipient has submitted all preaward compliance information required by 40 C.F.R. Parts 5 and 7; that based on the information submitted, this application satisfies the preaward provisions of 40 C.F.R. Parts 5 and 7; and that the applicant has given assurance that it will fully comply with all applicable civil rights statutes and EPA regulations.

A. \*Signature of Authorized EPA Official

B. Title of Authorized Official

C. Date

**\* See Instructions**

Instructions for EPA FORM 4700-4 (Rev. 06/2014)

General. Recipients of Federal financial assistance from the U.S. Environmental Protection Agency must comply with the following statutes and regulations.

Title VI of the Civil Rights Acts of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. The Act goes on to explain that the statute shall not be construed to authorize action with respect to any employment practice of any employer, employment agency, or labor organization (except where the primary objective of the Federal financial assistance is to provide employment). Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act provides that no person in the United States shall on the ground of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the Federal Water Pollution Control Act, as amended. Employment discrimination on the basis of sex is prohibited in all such programs or activities. Section 504 of the Rehabilitation Act of 1973 provides that no otherwise qualified individual with a disability in the United States shall solely by reason of disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Employment discrimination on the basis of disability is prohibited in all such programs or activities. The Age Discrimination Act of 1975 provides that no person on the basis of age shall be excluded from participation under any program or activity receiving Federal financial assistance. Employment discrimination is not covered. Age discrimination in employment is prohibited by the Age Discrimination in Employment Act administered by the Equal Employment Opportunity Commission. Title IX of the Education Amendments of 1972 provides that no person in the United States on the basis of sex shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Employment discrimination on the basis of sex is prohibited in all such education programs or activities. Note: an education program or activity is not limited to only those conducted by a formal institution. 40 C.F.R. Part 5 implements Title IX of the Education Amendments of 1972. 40 C.F.R. Part 7 implements Title VI of the Civil Rights Act of 1964, Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act, and Section 504 of The Rehabilitation Act of 1973. The Executive Order 13166 (E.O. 13166) entitled; "Improving Access to Services for Persons with Limited English Proficiency" requires Federal agencies work to ensure that recipients of Federal financial assistance provide meaningful access to their LEP applicants and beneficiaries.

Items "Applicant" means any entity that files an application or unsolicited proposal or otherwise requests EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Recipient" means any entity, other than applicant, which will actually receive EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Civil rights lawsuits and administrative complaints" means any lawsuit or administrative complaint alleging discrimination on the basis of race, color, national origin, sex, age, or disability pending or decided against the applicant and/or entity which actually benefits from the grant, but excluding employment complaints not covered by 40 C.F.R. Parts 5 and 7. For example, if a city is the named applicant but the grant will actually benefit the Department of Sewage, civil rights lawsuits involving both the city and the Department of Sewage should be listed. "Civil rights compliance review" means any review assessing the applicant's and/or recipient's compliance with laws prohibiting discrimination on the basis of race, color, national origin, sex, age, or disability. Submit this form with the original and required copies of applications, requests for extensions, requests for increase of funds, etc. Updates of information are all that are required after the initial application submission. If any item is not relevant to the project for which assistance is requested, write "NA" for "Not Applicable." In the event applicant is uncertain about how to answer any questions, EPA program officials should be contacted for clarification. \* Note: Signature appears in the Approval Section of the EPA Comprehensive Administrative Review For Grants/Cooperative Agreements & Continuation/Supplemental Awards form.

## Other Attachment File(s)

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\* Mandatory Other Attachment Filename:

Add Mandatory Other Attachment

Delete Mandatory Other Attachment

View Mandatory Other Attachment

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To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment

Delete Optional Other Attachment

View Optional Other Attachment



# EPA KEY CONTACTS FORM

OMB Number: 2030-0020  
Expiration Date: 06/30/2024

**Authorized Representative:** *Original awards and amendments will be sent to this individual for review and acceptance, unless otherwise indicated.*

<b>Name:</b>	<b>Prefix:</b>	<input type="text"/>	<b>First Name:</b>	<input type="text" value="Kate"/>	<b>Middle Name:</b>	<input type="text"/>
	<b>Last Name:</b>	<input type="text" value="Boyle"/>			<b>Suffix:</b>	<input type="text"/>
<b>Title:</b>	<input type="text" value="Deputy Executive Director"/>					
<b>Complete Address:</b>						
<b>Street1:</b>	<input type="text" value="812 E High Street"/>					
<b>Street2:</b>	<input type="text"/>					
<b>City:</b>	<input type="text" value="Charlottesville"/>	<b>State:</b>	<input type="text" value="VA: Virginia"/>			
<b>Zip / Postal Code:</b>	<input type="text" value="22902"/>	<b>Country:</b>	<input type="text" value="USA: UNITED STATES"/>			
<b>Phone Number:</b>	<input type="text" value="434-202-4018"/>			<b>Fax Number:</b>	<input type="text"/>	
<b>E-mail Address:</b>	<input type="text" value="kate@appvoices.org"/>					

**Payee:** *Individual authorized to accept payments.*

<b>Name:</b>	<b>Prefix:</b>	<input type="text"/>	<b>First Name:</b>	<input type="text" value="Shay"/>	<b>Middle Name:</b>	<input type="text"/>
	<b>Last Name:</b>	<input type="text" value="Boyd"/>			<b>Suffix:</b>	<input type="text"/>
<b>Title:</b>	<input type="text" value="Operations Manager"/>					
<b>Complete Address:</b>						
<b>Street1:</b>	<input type="text" value="589 West King St"/>					
<b>Street2:</b>	<input type="text"/>					
<b>City:</b>	<input type="text" value="Boone"/>	<b>State:</b>	<input type="text" value="NC: North Carolina"/>			
<b>Zip / Postal Code:</b>	<input type="text" value="28607"/>	<b>Country:</b>	<input type="text" value="USA: UNITED STATES"/>			
<b>Phone Number:</b>	<input type="text" value="828-262-1500"/>			<b>Fax Number:</b>	<input type="text"/>	
<b>E-mail Address:</b>	<input type="text" value="shay@appvoices.org"/>					

**Administrative Contact:** *Individual from Sponsored Programs Office to contact concerning administrative matters (i.e., indirect cost rate computation, rebudgeting requests etc).*

<b>Name:</b>	<b>Prefix:</b>	<input type="text"/>	<b>First Name:</b>	<input type="text" value="Katie"/>	<b>Middle Name:</b>	<input type="text"/>
	<b>Last Name:</b>	<input type="text" value="Bailey"/>			<b>Suffix:</b>	<input type="text"/>
<b>Title:</b>	<input type="text" value="Grants Coordinator"/>					
<b>Complete Address:</b>						
<b>Street1:</b>	<input type="text" value="812 E High St"/>					
<b>Street2:</b>	<input type="text"/>					
<b>City:</b>	<input type="text" value="Charlottesville"/>	<b>State:</b>	<input type="text" value="VA: Virginia"/>			
<b>Zip / Postal Code:</b>	<input type="text" value="22902"/>	<b>Country:</b>	<input type="text" value="USA: UNITED STATES"/>			
<b>Phone Number:</b>	<input type="text" value="434-293-6373"/>			<b>Fax Number:</b>	<input type="text"/>	
<b>E-mail Address:</b>	<input type="text" value="katie@appvoices.org"/>					

# EPA KEY CONTACTS FORM

**Project Manager:** *Individual responsible for the technical completion of the proposed work.*

**Name:** **Prefix:**  **First Name:**  **Middle Name:**

**Last Name:**  **Suffix:**

**Title:**

**Complete Address:**

**Street1:**

**Street2:**

**City:**

**State:**

**Zip / Postal Code:**

**Country:**

**Phone Number:**

**Fax Number:**

**E-mail Address:**

## Project Narrative File(s)

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\* **Mandatory Project Narrative File Filename:**

Add Mandatory Project Narrative File

Delete Mandatory Project Narrative File

View Mandatory Project Narrative File

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To add more Project Narrative File attachments, please use the attachment buttons below.

Add Optional Project Narrative File

Delete Optional Project Narrative File

View Optional Project Narrative File

# BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006  
Expiration Date: 02/28/2022

## SECTION A - BUDGET SUMMARY

Grant Program Function or Activity  (a)	Catalog of Federal Domestic Assistance Number  (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities Relating to the Clean Air Act	66.034	\$	\$	118,297.00	\$	118,297.00
2.						
3.						
4.						
5. Totals		\$	\$	118,297.00	\$	118,297.00

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# SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1) Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities Relating to the Clean Air Act	(2)	(3)	(4)	
a. Personnel	\$ 27,090.00	\$	\$	\$	\$ 27,090.00
b. Fringe Benefits	5,438.00				5,438.00
c. Travel	4,500.00				4,500.00
d. Equipment	24,940.00				24,940.00
e. Supplies	32,800.00				32,800.00
f. Contractual	10,000.00				10,000.00
g. Construction	0.00				0.00
h. Other					
i. Total Direct Charges (sum of 6a-6h)	104,768.00				\$ 104,768.00
j. Indirect Charges	13,529.00				\$ 13,529.00
k. TOTALS (sum of 6i and 6j)	\$ 118,297.00	\$	\$	\$	\$ 118,297.00
7. Program Income	\$	\$	\$	\$	\$

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SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program		(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8.	Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities Relating to the Clean Air Act	\$		\$	
9.					
10.					
11.					
12. TOTAL (sum of lines 8-11)		\$		\$	

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 87,379.00	\$ 64,486.00	\$ 15,088.00	\$ 4,247.00	\$ 3,558.00
14. Non-Federal	\$				
15. TOTAL (sum of lines 13 and 14)	\$ 87,379.00	\$ 64,486.00	\$ 15,088.00	\$ 4,247.00	\$ 3,558.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program		FUTURE FUNDING PERIODS (YEARS)			
		(b)First	(c) Second	(d) Third	(e) Fourth
16.	Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities Relating to the Clean Air Act	\$ 14,906.00	\$ 16,012.00	\$	\$
17.					
18.					
19.					
20. TOTAL (sum of lines 16 - 19)		\$ 14,906.00	\$ 16,012.00	\$	\$

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges: 104,768	22. Indirect Charges: 13,529
23. Remarks: AV calculated our indirect cost at a 3% rate. Virginia Tech calculated their indirect cost at a 20% rate.	

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## Application for Federal Assistance SF-424

\* 1. Type of Submission:

- ☐ Preapplication  
☒ Application  
☐ Changed/Corrected Application

\* 2. Type of Application:

- ☒ New  
☐ Continuation  
☐ Revision

\* If Revision, select appropriate letter(s):

\* Other (Specify):

\* 3. Date Received:

03/25/2022

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

\* a. Legal Name:

Appalachian Voices

\* b. Employer/Taxpayer Identification Number (EIN/TIN):

56-2049956

\* c. Organizational DUNS:

0816933710000

d. Address:

\* Street1:

589 West King St

Street2:

\* City:

Boone

County/Parish:

\* State:

NC: North Carolina

Province:

\* Country:

USA: UNITED STATES

\* Zip / Postal Code:

28607-3536

e. Organizational Unit:

Department Name:

Central Appalachian Team

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

\* First Name:

Katie

Middle Name:

\* Last Name:

Bailey

Suffix:

Title:

Grants Coordinator

Organizational Affiliation:

Appalachian Voices

\* Telephone Number:

434-293-6373

Fax Number:

\* Email:

katie@appvoices.org

## Application for Federal Assistance SF-424

### \* 9. Type of Applicant 1: Select Applicant Type:

M: Nonprofit with 501C3 IRS Status (Other than Institution of Higher Education)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

\* Other (specify):

### \* 10. Name of Federal Agency:

Environmental Protection Agency

### 11. Catalog of Federal Domestic Assistance Number:

66.034

CFDA Title:

Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities  
Relating to the Clean Air Act

### \* 12. Funding Opportunity Number:

EPA-OAR-OAQPS-22-01

\* Title:

Enhanced Air Quality Monitoring for Communities

### 13. Competition Identification Number:

Title:

### 14. Areas Affected by Project (Cities, Counties, States, etc.):

1238-List of Areas Affected by the Project.

Add Attachment

Delete Attachment

View Attachment

### \* 15. Descriptive Title of Applicant's Project:

Upper South and Appalachia Citizen Air Monitoring Project

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

**Application for Federal Assistance SF-424****16. Congressional Districts Of:**\* a. Applicant \* b. Program/Project 

Attach an additional list of Program/Project Congressional Districts if needed.

**17. Proposed Project:**\* a. Start Date: \* b. End Date: **18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="118,297.00"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="118,297.00"/>

**\* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

**\* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

**21. \*By signing this application, I certify (1) to the statements contained in the list of certifications\*\* and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances\*\* and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ \*\* I AGREE

\*\* The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

**Authorized Representative:**

Prefix:  \* First Name:

Middle Name:

\* Last Name:

Suffix:

\* Title: \* Telephone Number:  Fax Number: \* Email: \* Signature of Authorized Representative:  \* Date Signed:

To whom it may concern,

I'm writing to express my strong support for Appalachian Voices' proposal to the EPA's *Enhanced Air Quality Monitoring for Communities*, RFA#: EPA-OAR-OAQPS-22-01. This proposal aligns with the mission of my research group, my department, and my university, which seeks to enhance our understanding of the environmental pollutants impacting our local and global community.

I am excited to partner with Appalachian Voices on this project by collaborating in the collection and interpretation of new data on the concentrations of hazardous air pollutants in our local rural communities.

My role in this project will be to manage the deployment of an instrument for the continuous measurement of total aromatic compounds at a site at which there are reasons to be concerned about potential levels of hazardous air pollutants. My team will also lead the collection and analysis of chemically detailed samples and laboratory evaluation of the measurement technology used for the continuous measurements. I am excited about this work not only for the potential benefits to the surrounding community, but also because of the opportunity to evaluate more closely the low-cost tools that are currently available for these types of measurements.

I am confident that this project will be valuable to our work and to the causes of public health, citizen science, and environmental justice in the Appalachian region, as well as advancing our understanding of current air quality measurement technologies. I look forward to partnering with Appalachian Voices on this important work.

Please let me know if you have any questions or concerns,

Sincerely,



Gabriel Isaacman-VanWertz  
Assistant Professor  
Department of Civil and Environmental Engineering  
Virginia Tech

March 23, 2022

To whom it may concern,

I am an associate professor of history at Chatham University, and I have long researched Appalachian history and particularly environmental history. My most recent work examines recent challenges and social movements in the region.

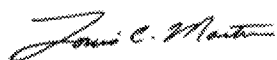
I'm writing to express my support for Appalachian Voices' proposal to the EPA's *Enhanced Air Quality Monitoring for Communities*, RFA#: EPA-OAR-OAQPS-22-01. This project would yield significant data and insights into ongoing challenges in this time of historic change in the region.

While I'm certain that many health science professionals will be intensely interested in the results, I can also say that increasingly environmental historians rely on this very kind of data to examine changes in the environment, communities, and human health over time.

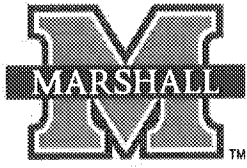
I am look forward to partnering with Appalachian Voices on this project by examining the resulting data. In addition to informing my understanding of the ongoing challenges during this period in the coal industry's history in the region, I foresee the potential to partner with public health researchers who need expertise in the historical context of this data.

Finally, I am a resident of the region and an advocate for environmental justice. I am an asthma sufferer, and my doctor informed me that it was likely from growing up in an area known for producing, transporting, and burning coal as well as impounding coal ash waste. This project is important to me, not just as a researcher, but as a citizen.

Thank you for your time,

A handwritten signature in cursive script, appearing to read "Lou Martin".

Dr. Lou Martin  
Chatham University  
Department of Social Sciences  
Pittsburgh, Pennsylvania 15232



To whom it may concern,

I am writing to express my strong support for Appalachian Voices' proposal to the EPA's Enhanced Air Quality Monitoring for Communities, RFA#: EPA-OAR-OAQPS-22-01. This proposal aligns with the mission of the Marshall University College of Engineering, Department of Industrial and Systems Engineering, and especially in that it may provide learning and research opportunities for our students, especially those in the MS Environmental, Safety and Health program.

I am excited to partner with Appalachian Voices on this project by examining the resulting data, as it pertains to my research and interests, as well as that of many of my students.

As a program coordinator and advisor to MS students, I believe this work would provide opportunities for student research, which is so valuable.

I am confident that this project will be valuable to our work and teaching, and to the causes of public health, citizen science, and environmental justice in the Appalachian region. I look forward to partnering with Appalachian Voices on this important work.

Sincerely,

D. Scott Simonton, PE, PhD  
Professor and Program Coordinator  
Marshall University  
College of Engineering and Computer Sciences  
Department of Industrial and Systems Engineering

**Marshall University**  
**Department of Industrial and Systems Engineering**

Arthur Weisberg Family Applied Engineering Complex  
1676 Third Avenue  
Huntington, WV 25755  
Tel: 304-696-2865  
Fax: 304-696-5454  
**marshall.edu**

**BE BOLD.**  
BECOME PART OF THE MARSHALL FAMILY.



THE UNIVERSITY OF VIRGINIA'S COLLEGE AT WISE



Department of Natural Sciences

1 College Avenue  
Wise, VA 24293

PHONE (276) 328-0203  
FAX (276) 376-4603

21 March 2022

To whom it may concern,

We are writing on behalf of the Department of Natural Sciences at the University of Virginia's College at Wise (UVAW) to express our strong support for Appalachian Voices' proposal to the EPA's *Enhanced Air Quality Monitoring for Communities*, RFA#: EPA-OAR-OAQPS-22-01. This proposal aligns with our mission to engage students in projects that foster community partnerships and improve interdisciplinary understanding of the processes affecting ecosystem and environmental health.

UVAW is excited to partner with Appalachian Voices by installing and maintaining a number of purple air PM 2.5 sensors on campus and in the communities where we work, play, and grow our food. This project will be the first step in filling a major gap in air quality monitoring in southwest Virginia. Specifically, we will place 6-8 sensors around campus and in the community of Wise, VA, where residents are concerned or uninformed about the impacts of coal mining/hauling and other forms of transportation on local air quality. We aim to work with our students and citizen scientists to analyze the data over time and effectively communicate the results to our members, partners, and the general public.

Appalachian Voices is a respected environmental advocate for the region and has employed a fact-based, thoroughly-researched outreach and communication strategy that is driving the transition to a new, more sustainable economy. Several of our graduates have found employment with Appalachian Voices and similar organizations, and we mutually benefit from our ongoing partnership. We are confident that this project will be valuable to the College, our students, and to the communities that we serve, and look forward to partnering with Appalachian Voices on this important work.

Sincerely,

Handwritten signature of Walter H. Smith in black ink.

Walter H. Smith  
Associate Professor of Biology

Handwritten signature of Robert D. VanGundy in black ink.

Robert D. VanGundy  
Prof. of Environmental Geology (ret.)

Handwritten signature of Teresa L. Brown in black ink.

Teresa L. Brown  
Asst. Prof. of Environmental Geology

Handwritten signature of Robert W. Hunter, Jr. in black ink.

Robert W. Hunter, Jr.  
Geographic Information Systems

Emily Satterwhite, PhD  
Associate Professor  
Department of Religion and Culture  
Director, Appalachian Studies Program  
Department of Religion and Culture  
115 Major Williams Hall (0227)  
Blacksburg, Virginia 24061

March 23, 2022

To Whom It May Concern,

I'm writing to express my strong support for Appalachian Voices' proposal to the EPA's *Enhanced Air Quality Monitoring for Communities*, RFA#: EPA-OAR-OAQPS-22-01. This proposal aligns with the mission of the Appalachian Studies program at Virginia Tech, which is committed to environmental justice.

I am excited to partner with Appalachian Voices on this project by examining the resulting data, as it pertains to my research into environmental justice considerations in eastern Montgomery County, Virginia. My current project, "Lafayette Area Community Study," is working to assess the extent to which the area should be considered an environmental justice community disproportionately burdened by pollution. Funded by the VT Center for Peace Studies and Violence Prevention, the research study is made possible by my co-PI Dr. Shannon Bell and a twelve-member team of students and community leaders.

I have worked for years in a personal capacity with Appalachian Voices and am happy to enter into a research partnership with this valued community organization.

I am confident that this project will be necessary in the pursuit of public health, citizen science, and environmental justice in the Appalachian region. I look forward to partnering with Appalachian Voices on this important work.

Sincerely,



Emily Satterwhite, PhD  
Associate Professor and Director,  
Appalachian Studies



**Drew Harris MD**  
**Assistant Professor of Medicine**  
**Department of Medicine**  
**Pulmonary and Critical Care Medicine**  
**Assoc Prog Director, UVA Int Med Residency**  
**Medical Director, UVA Wise Health Clinic**  
**Medical Director, Stone Mountain Black Lung**  
**[Drew.Harris@Virginia.edu](mailto:Drew.Harris@Virginia.edu)**

To whom it may concern,

I'm writing on behalf of Stone Mountain Health Services, a federally qualified health center in Southwestern Virginia, as well as The University of Virginia's Division of Pulmonology and Department of Medicine, to express my strong support for Appalachian Voices' proposal to the EPA's *Enhanced Air Quality Monitoring for Communities*, RFA#: EPA-OAR-OAQPS-22-01.

I am a pulmonologist working at a Federally Qualified Health Center in Southwestern Virginia and focused on the social and environmental determinants of health in Central Appalachia. I have previously worked with Appalachian Voices in a case study of the health impacts of fugitive coal dust from a coal processing plant in Kentucky. In this context, I have been continuously impressed by Appalachian Voices leadership and technical expertise in exposure assessment. I am also inspired by Appalachian Voices place in our community -- App Voices is a widely respected and trusted partner for many organizations and individuals in Central Appalachia. For these reasons, Appalachian Voices is well positioned to succeed in the proposed work. I am excited to collaborate on this proposed project by examining the resulting data.

I am confident that this project will be valuable to our collaborative work and to the causes of public health, citizen science, and environmental justice in the Appalachian region.

A handwritten signature in black ink that reads "Drew Harris".

Drew Harris MD

March 19, 2022

To whom it may concern,

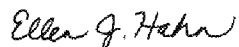
I am thrilled to express my strong support on behalf of the University of Kentucky Center for Appalachian Research in Environmental Sciences (UK-CARES) for Appalachian Voices' proposal to the EPA's Enhanced Air Quality Monitoring for Communities, RFA#: EPA-OAR-OAQPS-22-01. This proposal aligns with the mission of UK-CARES-- to discover and translate research on how the environment affects the health of people in rural Appalachia. UK-CARES is an NIEHS-funded Environmental Health Sciences Core Center serving southeastern Kentucky; and, as such, we provide the infrastructure to support community-academic partnerships to build capacity for environmental health promotion, like your EPA proposal. Our Center investigators conduct basic, applied, clinical, and population health research, with a focus on health impacts of indoor and outdoor airborne contaminants, as well as other environmental health exposures and emerging environmental health threats.

We are excited to partner with Appalachian Voices on this project by examining the resulting data, as it pertains to our Center's research in outdoor air quality. We have appreciated working alongside Appalachian Voices and other public health partners in a working group to plan joint projects to evaluate the impacts of secondhand exposure to coal dust on respiratory health in our target region.

Appalachian Voices is a critically important community partner with our Center, providing active leadership of our Stakeholder Advisory Board since our Center's inception in 2017.

I am confident that this project will be valuable to our work to promote air quality in our Appalachian region and to the factors impacting public health, citizen science, and environmental justice in the Appalachian region. UK-CARES and our Center investigators and community engagement staff look forward to partnering with Appalachian Voices on this important work.

Best,



Ellen J. Hahn, PhD, RN, FAAN  
Professor, UK College of Nursing and College of Public Health  
Director, UK-CARES and BREATHE  
2265 Harrodsburg Road, Suite 202  
Lexington, KY 40504  
859-257-2358  
[ejhahn00@email.uky.edu](mailto:ejhahn00@email.uky.edu)

Hannah Mast, Co-President  
Tyler Weiglein, Co-President  
Virginia Scientist-Community Interface (V-SCI)

March 23, 2022

To Whom It May Concern:

We're writing on behalf of the Virginia Scientist-Community Interface (V-SCI) to express our strong support for Appalachian Voices' proposal to the EPA's *Enhanced Air Quality Monitoring for Communities*, RFA#: EPA-OAR-OAQPS-22-01. This proposal aligns with the mission of V-SCI, which is to provide scientific expertise for community-driven activism and advocacy in Virginia and the region.

V-SCI is very excited to partner with Appalachian Voices on this project. We will leverage our network of STEM graduate student members in southwest Virginia to assist with monitoring and collecting data from 1 PurpleAir PM<sub>2.5</sub> sensor and 1 VOC gas detector near Radford, Virginia. These sensors will collect air quality data in the vicinity of the Radford Army Ammunition Plant (RAAP), where residents are concerned about the impact on local air quality from open burning of explosive waste material at RAAP.

We are also excited to assist with communicating the resulting data to our members and to the local community. V-SCI has ongoing efforts to make data related to environmental and human health impacts of operations at RAAP more accessible to the general public, and this proposal complements our current work. As such, we are confident that this project will be valuable to our organization and to the concerned citizens living near RAAP.

We look forward to partnering with Appalachian Voices to complete this important work.

Sincerely,

Hannah Mast  
Tyler Weiglein



## KENTUCKIANS FOR THE COMMONWEALTH

P.O. Box 1450 • London, KY 40743  
606-878-2161 • [www.kftc.org](http://www.kftc.org)

*Action for Justice*

March 21, 2022

To whom it may concern,

I'm writing on behalf of Kentuckians For The Commonwealth (KFTC) to express strong support for Appalachian Voices' proposal to the EPA's *Enhanced Air Quality Monitoring for Communities*, RFA#: EPA-OAR-OAQPS-22-01. KFTC is a community of people, inspired by a vision, building grassroots power in Kentucky to win a more authentic democracy, a just and sustainable economy, and a clean energy future. This proposal aligns with KFTC's decades of work with communities who are directly affected by pollution from our extractive, fossil fuel economy.

KFTC is excited to partner with Appalachian Voices on this project by helping to install and maintain up to five purple air PM 2.5 sensors in the eastern and northern Kentucky communities, and by communicating about resulting data with our members, partners, and the general public. Specifically, this grant will support placing 2 sensors in Letcher County where residents are concerned about the impact of large scale re-mining on local air quality, 1 sensor in Floyd County in a vicinity where a natural gas compressor station is situated, and 6-8 additional monitors in northern Kentucky communities affected by multiple air pollution sources, including petroleum and chemical industries.

KFTC and Appalachian Voices have a strong relationship and collaborate closely on many past and current projects, including around training grassroots community members to monitor water quality of streams affected by mining pollution, developing scorecards to inform member-owners of rural electric cooperatives about their utility's governance policies and energy programs, and more. This air monitoring project represents yet another valuable collaboration between our organizations.

I am confident this project will be valuable to our organization and the communities where we organize. KFTC looks forward to partnering with Appalachian Voices on this important work.

Sincerely,

Lisa Abbott

Organizing Co-Director, Kentuckians For The Commonwealth

[lisa@kftc.org](mailto:lisa@kftc.org), 859-200-5159

SAPC

March 24, 2022

To whom it may concern,


On behalf of the Health and Safety Sub-Committee for the Institute District's Sub Area Planning Committee (SAPC), I write to express my strong support for Appalachian Voices' proposal to the EPA's ***Enhanced Air Quality Monitoring for Communities, RFA#: EPA-OAR-OAQPS-22-01***. This proposal is consistent with our committee's desire to advance environmentally sound initiatives and aligns with our organizational mission to develop and support activities and programs which enhance and enrich the overall quality of life for residents in the Institute-Pinewood-West Dunbar area.

SAPC is excited to partner with Appalachian Voices on this project by installing and maintaining 5 (five) purple air PM 2.5 sensors in the area of Institute-Pinewood-West Dunbar, collectively known as the Institute District. This is the homebase area from which we will work and communicate the resulting data to our members, partners, and the general public. Specifically, we will place 5 (five) sensors throughout the Institute District where residents are concerned about our local air quality and the impacts of emissions from the Altivia Chemical Campus /Union Carbide Company from the West side, WV Paving from the South end, and Old Dominion Freight Line from the East side.

This partnership with Appalachian Voices undergirds our endeavors to reduce the adverse effects of poor air quality we are exposed to and informs our work to improve health outcomes in our community. Information gleaned will not only help us better understand potential hazards and risks, but more importantly will allow us to create strategic plans and advocate for stronger policies that appropriately address these issues. Coordination and collaboration with private and public entities is consistent with our organizational objectives and is particularly welcome from Appalachian Voices in terms of securing needed monitoring equipment, guidance on use, and assisting with the evaluation and application of info gathered.

I am confident that this project will be valuable to our organization, but moreover to the residents of the Institute District we serve. The Sub Area Planning Committee looks forward to partnering with Appalachian Voices on this important work and is pleased to support this project.

Sincerely,

  
Kathy Ferguson, Vice President  
Chair of the Health and Safety Sub-Committee  
Sub Area Planning Committee

142 Marshall Ave. Dunbar, WV 25064

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# CENTER FOR COALFIELD JUSTICE

PO Box 4023 • 14 E. Beau Street • Washington, PA 15301 •  
724.229.3550 • [www.centerforcoalfieldjustice.org](http://www.centerforcoalfieldjustice.org) •  
[info@centerforcoalfieldjustice.org](mailto:info@centerforcoalfieldjustice.org)

To whom it may concern,

I'm writing on behalf of The Center For Coalfield Justice (CCJ) to express my strong support for Appalachian Voices' proposal to the EPA's Enhanced Air Quality Monitoring for Communities, RFA#: EPA-OAR-OAQPS-22-01. This proposal aligns with the mission of CCJ, which reads, "Our mission is to improve policy and regulations for the oversight of fossil fuel extraction and use; to educate, empower and organize coalfield citizens; and to protect public and environmental health."

CCJ is excited to partner with Appalachian Voices on this project by installing and maintaining 5 or more purple air PM 2.5 sensors in Washington and Greene Counties in Pennsylvania where we work. Communicating the resulting data to our members, partners, and the general public will help increase awareness of air impacts in our communities. . Specifically, we will place 2 sensors near the MarkWest Natural Gas Processing Facility where residents are concerned about the impact of this facility on local air quality. Additionally, we will use the other 3 sensors to monitor homes near active natural gas well pads, in close proximity to natural gas compressor stations and potentially around a coal waste site and/or a coal processing facility.

Regional and inter-organizational collaboration is necessary in order to successfully gather meaningful and useful data. CCJ and Appalachian Voices are both a part of a larger regional group called the Alliance for Appalachia. Through the Alliance, we have collaborated on many projects including, water testing and data collection, black lung issues, GIS mapping and coal bonding.

I am confident that this project will be valuable to our organization and to Southwestern Pennsylvania. The Center For Coalfield Justice looks forward to partnering with Appalachian Voices on this important work.

Sincerely,

*Veronica J Coptis*

Veronica Coptis  
Executive Director  
Center for Coalfield Justice



March 2022

To whom it may concern,

I'm writing on behalf of Mountain Watershed Association (MWA), home of the Youghiogheny Riverkeeper, to express my strong support for Appalachian Voices' proposal to the EPA's *Enhanced Air Quality Monitoring for Communities*, RFA#: EPA-OAR-OAQPS-22-01. This proposal aligns with the mission of Mountain Watershed, which is dedicated to restoring, preserving, and protecting the greater Youghiogheny River watershed located in West Virginia, Maryland, and Pennsylvania.

MWA is excited to partner with Appalachian Voices on this project by installing and maintaining 2-4 purple air PM 2.5 sensors in the Donegal Township, Westmoreland County community where we work, and by communicating the resulting data to our members, partners, and the general public. Specifically, we will place 2-4 sensor(s) in Donegal townships where residents are concerned about the growing impact of LCT Energy's Rustic Ridge Deep Mine on local air quality.

Ongoing issues of fugitive dust, coal spills, and heavy truck traffic plagues our communities and there is growing concern regarding air quality and its likely environmental and health impacts within our community which includes the elderly and children. Establishing data will support our community as we advocate for ourselves with our local municipalities and state regulatory agencies.

I am confident that this project will be valuable to our organization and to the Donegal Township community that we serve. Mountain Watershed Association looks forward to partnering with Appalachian Voices on this important work.

Sincerely,

Stacey Magda, Community Organizer, Mountain Watershed Association

[stacey@mtwatershed.com](mailto:stacey@mtwatershed.com)

[www.mtwatershed.com](http://www.mtwatershed.com)

To whom it may concern,

I'm writing on behalf of Memphis Community Against Pollution (MCAP) to express my strong support for Appalachian Voices' proposal to the EPA's *Enhanced Air Quality Monitoring for Communities*, RFA#: EPA-OAR-OAQPS-22-01. This proposal aligns with the MCAP's mission to fight environmental racism and pollution in Memphis.

MCAP is excited to partner with Appalachian Voices on this project by installing and maintaining purple air PM 2.5 sensors in the communities where we work and by communicating the resulting data to our members, partners, and the general public. Specifically, we will place three sensors along the transport route between the Allen Steam Plant, where crews will excavate 3.5 million cubic yards of coal ash and move it by truck to the South Shelby Landfill, which is also in Memphis. Residents are highly concerned about the impact of fugitive coal ash dust on local air quality and public health - active monitoring will allow us to record and respond to air quality violations.

Memphis Community Against the Pipeline is a Black-led, grassroots group that successfully fought to have coal ash excavated from unlined pits at Allen plant in order to protect the Memphis Sand Aquifer, where our city sources its drinking water. We are committed to diligently monitoring this coal ash removal effort to protect and empower vulnerable Black, brown and working class communities in Memphis who already experience environmental injustice.

MCAP has collaborated with Appalachian Voices staff on other energy issues in the past and we look forward to deepening our partnership with this important air quality monitoring project. I am confident that this project will be valuable to our organization and to the communities that we represent.

Sincerely,

A handwritten signature in black ink, reading "Justin J. Pearson". The signature is written in a cursive, flowing style.

Justin J. Pearson  
President  
Memphis Community Against Pollution (MCAP)

Ex. 6 Personal Privacy (PP)

**Ex. 6 Personal Privacy (PP)**



March 24, 2022

To whom it may concern,

I'm writing on behalf of Coal River Mountain Watch to express my strong support for Appalachian Voices' proposal to the EPA's Enhanced Air Quality Monitoring for Communities, RFA#: EPA-OAR-OAQPS-22-01. This proposal aligns with Coal River Mountain Watch's mission to stop the destruction of our communities and environment by mountaintop removal mining, to improve the quality of life in our area and to help rebuild sustainable communities.

We are excited to partner with Appalachian Voices on this project by installing and maintaining 5-7 purple air PM 2.5 sensors in the communities where we work, and by communicating the resulting data to our members, partners, and the general public. Specifically, we will place the sensors in the communities along Rt. 3 (Coal River Road) and Rt. 1 (Clear Fork Road) bordering Coal River Mountain in northwest Raleigh County, WV, where residents are concerned about the impact of Alpha Metallurgical Resources' coal operations on local air quality.

Coal River Mountain Watch seeks to better understand the source, nature, and extent of dust pollution in our area so that residents can make informed decisions to protect themselves and their families. Pertinent information may also be shared with regulatory agencies and elected officials.

Coal River Mountain Watch has worked with Appalachian Voices for over 20 years, publicizing the effects of mountaintop removal coal mining, forming the Alliance for Appalachia, monitoring specific coal mines, and opposing new and renewed mountaintop removal permits. I am confident that this project will be valuable to our organization and to the communities that we serve. We look forward to being a part of this important work.

Sincerely,

Vernon Haltom  
Executive Director  
vernon@crmw.net



To whom it may concern,

I'm writing on behalf of Southern Appalachian Mountain Stewards (SAMS) to express our strong support for Appalachian Voices' proposal to the EPA's *Enhanced Air Quality Monitoring for Communities*, RFA#: EPA-OAR-OAQPS-22-01. This proposal aligns with the mission of Southern Appalachian Mountain Stewards, which includes addressing current and legacy costs of coal mining in our region.

Southern Appalachian Mountain Stewards is excited to partner with Appalachian Voices on this project by installing and maintaining 4-5 purple air PM 2.5 sensors in the Lee and Wise County communities where we work, and by communicating the resulting data to our members, partners, and the general public. Specifically, we will place sensors in the towns of Appalachia and Big Stone Gap, VA, where residents are concerned about the impact of coal extraction, processing, and transport on local air quality.

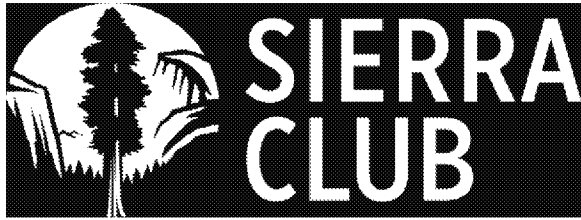
SAMS has a history of leveraging dust monitoring data collected a decade ago in the small town of Appalachia, which resulted in a coal company agreeing to expand street sweeping along coal truck routes, and to thoroughly wash coal trucks before exiting loading facilities. Our intent with this project is to better understand the current state of air quality in Southwestern Virginia, to educate and engage the wider community on issues of air quality and public health, and to flag potential regulatory concerns around coal facilities with the appropriate authorities.

SAMS & Appalachian Voices have maintained an ongoing partnership since nearly the inception of our organization. We are confident that this project will be valuable to our organization and to the coal-impacted communities that we serve. Southern Appalachian Mountain Stewards looks forward to partnering with Appalachian Voices on this important work.

Sincerely,

A handwritten signature in black ink that reads "Terran Outsey". The signature is written in a cursive, flowing style.

Terran Outsey  
SAMS Acting Board President



To whom it may concern,

I'm writing on behalf of the Tennessee Chapter of Sierra Club to express my strong support for Appalachian Voices' proposal to the EPA's *Enhanced Air Quality Monitoring for Communities*, RFA#: EPA-OAR-OAQPS-22-01. For decades the Tennessee Chapter of Sierra Club has been inspiring Tennesseans to get outdoors to explore, enjoy, and protect the planet and we greatly value the opportunity for communities to be involved in scientific monitoring and learning about their local environment and air quality.

If awarded, the Sierra Club will allocate staff time to support Appalachian Voices with this project by communicating the resulting data from sensors installed in Tennessee communities to our 44,000 members and supporters as well as to partners and the general public.

Sierra Club has a long history of working with Appalachian Voices and for more than a decade we have partnered on community science projects and regional environmental advocacy. We are confident that Appalachian Voices will do an outstanding job supporting communities to monitor their own air quality as well as promote air quality monitoring partnerships between communities and other stakeholders.

Given the strong number of community groups that have come together and the clear benefits that this grant will provide Tennessee Communities, we strongly urge the EPA to award the Enhanced Air Quality Monitoring for Communities assistance to Appalachia Voices.

Sincerely,

Axel C. Ringe

A handwritten signature in cursive script that reads "Axel Ringe". The signature is written in black ink and is positioned above a horizontal line.

Water Conservation Chair

Tennessee Chapter Sierra Club

March 23, 2022

To whom it may concern,

I'm writing on behalf of Sierra Club Virginia Chapter to express my strong support for Appalachian Voices' proposal to the EPA's Enhanced Air Quality Monitoring for Communities, RFA#: EPA-OAR-OAQPS-22-01. This proposal aligns with the mission of Sierra Club Virginia Chapter which has worked with impacted community members to address concerns around coal pollution in Virginia.

The Sierra Club Virginia chapter is excited to support Appalachian Voices' proposal to install and maintain 2-4 purple air PM 2.5 sensors in Lamberts Point Community where we work, and by communicating the resulting data to our members, partners, and the general public.

Residents of Lamberts Point have been working together for years and led efforts to call attention to health, climate, and air/water impacts of coal dust. Efforts led by the late Joe Cook and Dr. Anna Jeng in conjunction with community members to call attention to this issue. The ability to utilize air monitoring equipment that is managed in conjunction with the community will be key for the community feeling empowered and engaged to document the impacts.

I am confident that this project will be valuable to our organization and to the community. Sierra Club Virginia Chapter is enthusiastic about the prospects of success on this important work.

Sincerely,

Ann Creasy, Conservation Program Manager



# APPALACHIA MOUNTAIN FLOWS

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## TO WHOM IT MAY CONCERN,

I'm writing on behalf of Appalachia Mountain Flows to express my strong support for Appalachian Voices' proposal to the EPA's Enhanced Air Quality Monitoring for Communities, RFA#: EPA-OAR-OAQPS-22-01. This proposal aligns with the mission of Appalachia Mountain Flows which is to bring sustainable living to individuals and communities. This includes clean and safe water, healthy living and prospering opportunities in Appalachia.

Appalachia Mountain Flows is excited to partner with Appalachian Voices on this project by installing and maintaining 1-3 purple air PM 2.5 sensors in the vicinity of Keystone, Kimball, and Northfork, WV where we work, and by communicating the resulting data to our members, partners, and the general public. These communities are situated in a narrow valley in McDowell County, where local air quality is impacted by multiple large surface coal mines, a coal sludge impoundment, and heavy coal and mining equipment traffic.

Appalachia Mountain Flows' goal is to make a positive impact on the Appalachia communities. Our partnership with this project and commitment to consistent monitoring of the air quality sensors aligns with our mission. We are pleased to be part of a project that continues to assist our community members in knowledge of their environment that results in healthier, clean, and safe living.

I am confident that this project will be valuable to our organization and to the Appalachian communities that we serve. Appalachia Mountain Flows looks forward to partnering with Appalachian Voices on this important work.

**SINCERELY,**

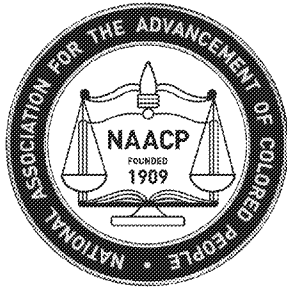
**TORI SATOW**

Executive Director

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135 Stoney Tipple Rd., Keystone, WV, 24868 • (330)704-5295  
Appalachiaflows@appalachiaflows.org • [www.appalachiaflows.org](http://www.appalachiaflows.org)





# NAACP

PITTSYLVANIA COUNTY BRANCH

March 22, 2022

To Whom It May Concern,

We are writing on behalf of the Environmental and Climate Justice Committee of the NAACP branch in Pittsylvania County, Virginia, to express our strong support for Appalachian Voices' proposal to the EPA's *Enhanced Air Quality Monitoring for Communities*, RFA#: EPA-OAR-OAQPS-22-01. Our branch recently became involved with Appalachian Voices who joined in our concern over a gas compressor station in an environmental justice community. We were disappointed to find that accurate air monitoring data was quite sparse in our vicinity. The two closest monitors are approximately fifty miles from the location of the compressor station.

We are eager to partner with Appalachian Voices on this project by installing and maintaining four purple air PM 2.5 sensors in the local community. Specifically, the monitors will be placed in or near the Banister voting district of the county where residents are concerned about the impact of the gas compressor station on local air quality. We also appreciate the opportunity to fill in a gap in the regional monitoring of air quality and to provide useful data for the scientific community.

We look forward to a successful partnership and outcome with Appalachian Voices and the Environmental Protection Agency in this project.

Sincerely,

The Environmental and Climate Justice  
Committee  
Pittsylvania County Branch of the NAACP  
Elizabeth Jones, Chair  
Anderson Jones  
Brenda Poole  
Katie Whitehead  
Robert McNutt  
Anita Royston, Branch President

*"Working towards freedom justice and equality for all since 1909"*

P.O. Box 1072 Chatham, VA 24531 Phone: 916-475-7162 | [naacppittsyco@gmail.com](mailto:naacppittsyco@gmail.com)

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Clearfork Community Institute  
P.O. Box 81  
Eagan, TN 37730  
423-784-0095

To whom it may concern,

I'm writing on behalf of the Clearfork Community Institute (CCI) to express my strong support for Appalachian Voices' proposal to the EPA's *Enhanced Air Quality Monitoring for Communities*, RFA#: EPA-OAR-OAQPS-22-01. This proposal aligns with the mission of CCI, which seeks to establish and exercise community led development that supports and sustains Central Appalachia by facilitating and prioritizing knowledge gained through work and reflection in place-based community.

CCI is excited to partner with Appalachian Voices on this project by installing and maintaining 3-5 purple air PM 2.5 sensors in the Clearfork Valley where we work, and by communicating the resulting data to our members, partners, and the general public. Specifically, we will place 3-5 sensor(s) in the Clearfork Valley where residents are concerned about the impact of the history of coal mining on local air quality.

I am confident that this project will be valuable to our organization and to the Clearfork Valley that we serve. CCI looks forward to partnering with Appalachian Voices on this important work.

Sincerely,

*Marie Webster*

Marie Webster, Director



## Statewide Organizing for Community eMpowerment

P.O. Box 12667

Knoxville, TN 37912

865-249-7488 • [info@socm.org](mailto:info@socm.org) • [www.socm.org](http://www.socm.org)

To whom it may concern,

I'm writing on behalf of Statewide Organizing for Community eMpowerment (SOCM) to express my strong support for Appalachian Voices' proposal to the EPA's *Enhanced Air Quality Monitoring for Communities*, RFA#: EPA-OAR-OAQPS-22-01. This proposal aligns with the SOCM's mission of utilizing civic involvement and collective action to empower Tennessee communities to have a greater voice in determining their own environmental, economic, and social future.

SOCM is excited to partner with Appalachian Voices on this project by installing and maintaining 4 purple air PM 2.5 sensors in Grundy County, and by communicating the resulting data to our members, partners, and the general public. Specifically, we will place 4 sensors in Monteagle, where residents are concerned about the impact of sand quarrying, particularly the proposed Clouse Hill quarry, on local air quality.

We want to help community members access the data and interpret it properly to understand potential impacts to their health and safety from any air quality violations from the quarrying process. We hope to strengthen our partnership with Appalachian Voices, which we've worked with in communities across East Tennessee for years. We will provide important support work in other communities where they intend to place monitors.

I am confident that this project will be valuable to our organization and to the communities that we serve. SOCM looks forward to partnering with Appalachian Voices on this important work.

Sincerely,

Austin Sauerbrei  
Executive Director  
615-809-4448  
[austin@socm.org](mailto:austin@socm.org)



March 22, 2022

To Whom It May Concern,

On behalf of the Press Pause Coalition, a group of state and local environmental organizations in Virginia, I would like to express my support for Appalachian Voices' proposal to the EPA's Enhanced Air Quality Monitoring for Communities, RFA#: EPA-OAR-OAQPS-22-01. Press Pause was established to ensure that Virginia is protected from threats to air and water quality that are inherent to the metal mining industry. Appalachian Voices' proposal aligns with our mission to protect Virginians from those threats.

Press Pause has worked with Appalachian Voices in the past, as they are strong supporters of the work being done within communities targeted by extractive industries. We are excited to work with them again on this project by installing and maintaining purple air PM 2.5 sensors in the community that first called attention to the metal mining industry's interest in Virginia, and by communicating the resulting data to our members, partners, and the general public. Specifically, we will place sensors in the Warminster neighborhood of Buckingham, VA, where residents are concerned about the impact of potential metal mining on local air quality, and how this impact might combine with potential impacts on air quality from the logging industry that also operates in the area.

Through Appalachian Voices' work on this project, Press Pause hopes to gain an understanding of current air quality and any issues already present. That knowledge will empower the community to make strong and fact-based statements in the future as they seek to protect themselves from the dangers of industrial metal mining.

I am confident that this project will be valuable to our organization and to the communities that we serve. Press Pause looks forward to partnering with Appalachian Voices on this important work.

Sincerely,

Stephanie Rinaldi

*Coordinator, Press Pause Coalition*

(434) 270-0706    [presspauseva@gmail.com](mailto:presspauseva@gmail.com)    [presspauseva.org](http://presspauseva.org)



F R I E N D S O F  
**Buckingham**

March 22, 2022

To Whom It May Concern,

I'm writing on behalf of Friends of Buckingham to express our strong support for Appalachian Voices' proposal to the EPA's Enhanced Air Quality Monitoring for Communities, RFA#: EPA-OAR-OAQPS-22-01. This proposal aligns with the mission of Friends of Buckingham, which is to protect the natural resources and cultural heritage of Buckingham County, VA and to promote sustainable social and economic wellbeing.

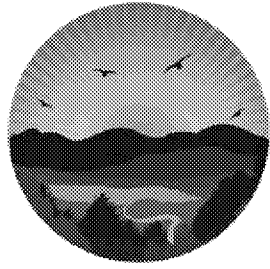
Friends of Buckingham is excited to partner with Appalachian Voices on this project by installing and maintaining 2 purple air PM 2.5 sensors in the community where we work, and by communicating the resulting data to our members, partners, and the general public. Specifically, we will place sensors in the Warminster Road and Union Hill neighborhoods, where residents are concerned about the impacts of potential large-scale gold mining on local air quality.

Our mission and years of work have focused on safeguarding the air, water and health of those in the rural and agricultural county of Buckingham and we have worked very closely with Appalachian Voices in these efforts since 2014. Previous collaboration includes successful efforts to prevent construction of a fracked-gas compressor station, which would have emitted toxins including formaldehyde and particulate matter into the air of our community.

Our intent with this project is to collect emissions data from commercial gold mining operations proposed for Buckingham – from both baseline data during exploratory drilling – and for potential particulate matter emissions should any operations move forward. Friends of Buckingham previously performed baseline testing for the Atlantic Coast Pipeline and its proposed compressor station, and thus is well familiar with and welcomes the opportunity to monitor for the possible gold mining project.

We are confident that this project will be valuable to our organization and to the communities that we serve. Friends of Buckingham looks forward to partnering with Appalachian Voices on this important work.

Sincerely,



FRIENDS OF  
**Buckingham**

Chad Oba, President  
Friends of Buckingham

# Appalachian Voices

## Upper South and Appalachia Citizen Air Monitoring Project

March 25, 2022

### Project Team Biographies and Resumes

*Erin Savage, Central Appalachian Program Manager* — Since coming to Appalachian Voices in 2011, Erin has focused on Clean Water Act enforcement and developing citizen water- monitoring initiatives in coal-impacted communities throughout Central Appalachia. She earned a B.S. in biology from the University of Washington and a Master of Environmental Science from the Yale School of Forestry and Environmental Studies.

*Matt Hepler, Central Appalachian Environmental Scientist* — Originally from Bath County, Va, Matt holds his B.A. in geography from Virginia Tech with concentrations in Geographic Information Systems and environmental resources. He spent two years in the Geography masters program at Appalachian State University, where he focused on Hydrology. Matt joined Appalachian Voices in 2017 and is an expert on water issues in coal mining areas.

*Willie Dodson, Central Appalachian Field Coordinator* — Willie holds a degree in Appalachian Studies from Berea College. He has been organizing for environmental and social justice in Appalachia for nearly two decades. Focusing on issues related to coal mining, and on leadership development among working class and young Appalachians, Willie is knowledgeable on community experiences of, and policies affecting, black lung disease, and air and water quality. Willie grew up in the piedmont and mountains of Virginia.

*Brianna Knisley, Tennessee Campaign Manager* — Bri obtained her B.A. in sustainable development from Wilmington College of Ohio, where she spent three years as an assistant to the Curator of a Quaker Heritage Center. Through engaging in multiple service-learning projects, interning and working for local nonprofits, and serving on an environmental conservation corps, Bri has cultivated her approach to intersectional problem solving. Bri joined Appalachian Voices in 2017 and credits her passion for rural solutions to her upbringing in a southern Ohio community struggling with economic, social and environmental issues faced by many rural places across the U.S. Knisley organizes with workers and others experiencing health effects from exposure to fly ash, and she is an expert in the state's utility industries, focusing on consumer engagement with the Tennessee Valley Authority, and member/owner empowerment within Rural Electric Cooperative

*Jessica Sims, Virginia Field Coordinator* — Jessica joined Appalachian Voices in the fall of 2020 as Virginia Field Coordinator. Born and raised in Central Virginia, Jessica holds a lifelong passion for protecting Virginia's waterways. Fine art degrees from Virginia Commonwealth University and UNC-Greensboro led her to the nonprofit world, where she volunteered extensively with Chesapeake Climate Action Network and the James River Association before working at the Sierra Club Virginia Chapter on their pipelines campaign. Sims has expertise in the permitting and enforcement of natural gas pipelines, and has facilitated several cross-class and racially diverse community and coalition efforts to challenge and monitor both pipeline and mining operations in working class and POC communities.

# ERIN E. SAVAGE

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## WORK EXPERIENCE

### **Appalachian Voices, Boone, NC**

#### *Central Appalachian Senior Program Manager*

January 2019 – Present

In addition responsibilities below, advise organization on strategic planning regarding coal mining and other resource extraction in Central Appalachian states.

#### *Central Appalachian Program Manager*

January 2017 – December 2018

Manage a team of 4 working on the Central Appalachian campaign. Respond to community concerns regarding coal mining. Research and consult on state and federal policy that impacts coal mining. Collect and analyze a wide variety of data, including water quality data, coal production data, and remote sensing data.

#### *Central Appalachian Campaign Coordinator*

June 2014 – December 2016

Organize and run our Central Appalachian campaign, which focuses on the impacts of surface coal mining throughout Kentucky, West Virginia, Virginia and Tennessee.

#### *Water Quality Specialist*

December 2011 – June 2014

Designed and manage a pollution reporting site, [appalachianwaterwatch.org](http://appalachianwaterwatch.org), and hotline. Respond to spill events in public waters and those impacting well water and public drinking water. Manage a coalition of citizen groups collecting water monitoring data, [ace-project.org](http://ace-project.org). Work with community members in coal-impacted areas of Tennessee, Kentucky, Virginia and West Virginia to increase community engagement in water and mining issues. Oversee development and participation in Clean Water Act citizen suits.

### **Appalachian Voices and Upper Watauga Riverkeeper, Boone, NC**

May 2011 – December 2011

#### *AmeriCorps Water Quality Outreach and Education Associate*

Organized a citizen science water monitoring program, Appalachian Water Watch, in the coal fields of eastern Kentucky and southwestern Virginia, including writing a training manual, networking with partner organizations and presenting training sessions. Acted as the assistant Upper Watauga Riverkeeper by responding to pollution events, providing community education and organizing river cleanups.

### **American Whitewater, Cullowhee, NC**

#### *River Stewardship Consultant*

February 2011 – July 2011

Reviewing scientific data and publications relevant to Federal Energy Regulatory Commission relicensing of hydropower dams.

### **Yale University Department of Chemistry, New Haven, CT**

#### *Teaching Fellow*

September 2009 – December 2009

Taught two sections of General Chemistry. Conducted weekly lectures, drafted exams and review materials, graded exams and assignments, conducted supplemental review sessions.

### **Yale University Office of Sustainability, New Haven, CT**

#### *Website Content Manager*

September 2008 – May 2009

Created and maintained web content related to the activities of the Office of Sustainability and resources available to the Yale community and the general public.

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## SKILLS

Water Monitoring, including YSI pH/conductivity probes, turbidity measurements, heavy metal and VOC grab sampling

Microsoft Word, Excel, Powerpoint and Publisher

Google Earth Pro

ArcGIS

Mark and recapture method for population vital rates

Adobe Photoshop

Adobe Premiere

Telemetry

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## EDUCATION

**Yale University, School of Forestry and Environmental Science, New Haven, CT**

2008 – 2010

*Master of Environmental Science*

**University of Washington, Honors Program, Seattle, WA**

2001 – 2006

*Bachelor of Science with College Honors in Biology, emphasis in Physiology, Minor in Philosophy*

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## RESEARCH EXPERIENCE

**Mountain Lion Management in Southeastern Arizona**

2009 – 2010

Studied social processes and policies contributing to conflicts between humans and cougars. Worked with ranchers, wildlife management bodies, and other stakeholders in Graham and Greenlee Counties.

Advisors: Dr. David Mattson and Dr. Susan Clark

**Southern Elephant Seal Population Dynamics in Argentina**

2005

Studied elephant seal population dynamics through mark-recapture methods and radio telemetry.

Advisors: Dr. Claudio Campagna and Dr. Marcela Uhart

**Crustacean Neuroendocrinology, University of Washington Biology Department**

2005 – 2006

Completed experiments in fluorescent labeling of neuropeptides and nerve backfilling in crustacean stomatogastric nervous systems. Wrote proposals for grants and abstracts for scientific conferences.

Advisor: Dr. Andrew Christie

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# Matthew Hunter Hepler

## Employment

### Environmental Scientist

### Appalachian Voices

Jan 2017-Present  
40 hours a week M-F

- Worked with attorneys developing Clean Water act and SMCRA litigation
- Sampled streams and creeks near surface coal mines for heavy metals, ionic pollution and pH
- Helped community members resolve issues related to surface mining, taught community members how to read mining permits, participate in informal conferences, resolve complaints
- Wrote AMLER AML grants with community leaders
- Lobbied for the AML reauthorization and several other mining related bills.

### Water and Enforcement Organizer

### Southern Appalachian Mountain Stewards

August 2011 -Dec 2016  
40 hours a week M-F

- Negotiated two successful lawsuit settlements between coal companies and community members
- Successfully used funds from lawsuit settlement to clean up coal waste piles along rivers in Lee and Wise County, Virginia
- Ran SAMS citizen science water quality program using state-approved QA/QC protocols
- Helped coalfield citizens better understand both the mechanics and legal aspects of mining and mining law.

### GIS Development Technician

### Accurate GIS -a division of Weed Control inc

August 2005 -August 2009  
40 hours a week M-F

- Developed GIS solutions for Craig -Botetourt Electric cooperative electric infrastructure and databases
- Used GPS technologies to map the power grid of Craig Botetourt

## Education

### Virginia Tech

### Blacksburg Va

Fall 1999 - May 2005

B.A-Geography

Graduation: May 2005

- **Coursework:** GIS, Cartography, Spatial Algorithms, Remote Sensing, C++, Statistics, Physics, Appalachian Studies
- **Projects:** Numerous mapping projects for the Town of Blacksburg, Loblolly pine research, Mine reclamation projects.

### Appalachian State University

Finished Coursework but not my Master's Thesis.

### Boone NC

Finished coursework May 2011

Fall 2009- May 2011

- **Coursework:** GIS, Hydrology, Hydrogeology, Geophysics, Advanced Engineering Geology
- **Projects:** Designed curriculum for Science for Sustainability course, Geography student of the year.

## Technical Experience

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### Projects/Experience:

- 18 years of experience with GIS software
- Worked with Sierra Club attorneys and local leaders to clean up coal tipples in Norton and Lee County with money from successful lawsuits
- Mapped wetlands for the National Wetland Inventory using remote sensing methods
- Very experienced with Surface Mining Law (SMCRA) and the Clean Water Act
- Experience with Brownfields and other Environmental clean up grants

### Additional Experience and Awards

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- **Lab Instructor (2003-2005):** Taught Science for Sustainability at Appalachian State university
- **National Geographic Explorer-** Awarded National Geographic Explorer grant researching how to best reforest former mined lands using satellite imagery.
- **Wilderness First Responder -** Became certified in wilderness rescue
- **Brownfield Conferences-** Attended several brownfields conferences and workshops
- **Certified Drone Pilot**

### Languages and Technologies

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- C++; Python, Visual Basic, Javascript, SQL, HTML/CSS,
- ArcGIS, ArcGIS Online, Google Earth Engine, Q-GIS, Leaflet API, GPS software, Microsoft office products

**Ex. 6 Personal Privacy (PP)**

**Ex. 6 Personal Privacy (PP)**

To secure employment serving Appalachia in an organization that shares my commitment to environmental and social justice, and to the empowerment of individuals and communities.

- Active listener, articulate and tactful communicator
- Experienced grassroots organizer
- Strong public speaker
- Firm grasp of environmental, cultural, and social issues/ policies affecting Appalachia
- Motivated, accountable and self-directed
- Successful grant-writer and fundraiser

**Central Appalachian Field Coordinator** Appalachian Voices, Norton, Va.

*Aug. 2015 - present*

- Coordinate, educate, and organize community members around ending mountaintop removal coal mining and bringing economic diversification to coal-impacted areas of Southwest Virginia.

**VISTA Clinch River Valley Initiative**, Norton, Va.

*Jun. 2014 – Aug. 2015*

- Coordinate numerous youth engagement projects from oral history projects to stream monitoring.

**Creative Sewing and Crafts Interim Program Director** Union Church, Berea, Ky.

*Jan. 2014 – May 2014*

- Oversaw all aspects of a community-based program including coordination of and conflict resolution amongst participants, budgeting, purchasing, marketing and community partnership-building.

**Editor-in-Chief** The Pinnacle, Berea College, Berea, Ky.

*Aug. 2011 – Dec. 2012 (News-Writer Aug 2011 – May 2012; Associate Editor Aug. 2012 – May 2013; Editor-in-Chief Aug. 2013 – Dec. 2013)*

- Reported on campus, community and regional stories. Oversaw business and logistics of paper while working closely with the writing staff.

**Direct Service Provider** CC and Associates, Harrisonburg, Va.

*Apr. 2008 – May 2010*

- Provided assistance for adults with developmental disabilities in all aspects of day-to-day living.

**Musician/ Educator**, Self-employed, based out of Keezletown, Va.

*Jun. 2007 – January 2011*

- Toured the Eastern US performing traditional and original music, lecturing on environmental justice in Appalachia and providing grassroots organizing, campaign strategy, and other workshops to college student groups

**Campus Organizer**, Southern Alliance for Clean Energy, Knoxville, Tn.

*Aug. 2006 – Jun. 2007*

- Worked with student and community groups to develop and execute strategic campaigns. Facilitated leadership development. Instructed and assisted with organizational communication, messaging and media engagement.

**Bachelor of Arts**

**Berea College**, Berea, Ky. *Dec. 2013*

- Graduated Cum Laude
- Designed an independent major in Appalachian Studies
- Minored in Broadcast Journalism

# BRIANNA KNISLEY

## Ex. 6 Personal Privacy (PP)

### WORK HISTORY

#### TENNESSEE FIELD COORDINATOR **Appalachian Voices | 2017 to Present**

- Designs and implements annual and quarterly work plans
- Supervises Americorps VISTAs, fellows/interns and volunteers
- Educates and activates rural electric co-op members to develop and carry out issue campaigns
- Organizes, facilitates & generates turnout to community events
- Identifies member skillsets & supports leadership development
- Writes grants, implements work and handles reporting

#### CO-CHAIR **Advancing Equity & Opportunity DREC group | 2019**

- Leads content development and sets agenda for coalition calls
- Assigns work tasks and manages follow-through
- Represents DREC working group on collaborative council
- Plans annual convening

#### RESTORATION CREW MEMBER **Washington Conservation Corps | 2016-2017**

- Performed habitat restoration and trail maintenance in front and backcountry settings
- Educated and directed event volunteer groups of up to 25
- Identified persons in need, delivered emergency goods, and removed damaged and contaminated debris from flooded homes during 30-day disaster response deployment in Baton Rouge, LA

#### CURATORS ASSISTANT (STUDENT WORKER) **Quaker Heritage Center | 2012-2015**

- Assisted in management of event programs, exhibit planning and installation, and social media outreach.
- Performed collections processing, maintenance and storage
- Authored didactic content for various artifacts
- Handled clerical duties such as filing donation paperwork, recording receipts, preparing outgoing mail and exhibit flyers

### EDUCATION

#### WILMINGTON COLLEGE (2011-2015) GPA 4.0

#### **Sustainable Development (B.A.)**

- Self-designed major incorporating an intersections approach to environmental, economic and social issues.
- Dean's list, 2011-2015.
- Graduated summa cum laude.

### TRAININGS

#### **Building capacity to sustain high performance** - Alliance for Better Nonprofits 2019 (5 hour)

#### **Diversity, Equity and Inclusion** - Raben Group 2018 (3 days)

#### **Effectively leading multiple generations** - Alliance for Better Nonprofits 2018 (5 hour)

#### **Community Organizing Training** - Highlander Center 2017 (3 days)

### INTERNSHIPS

#### GRANT WRITING INTERN **Quaker Heritage Center | January-April 2015**

- Researched design, cost and viability of various re-housing projects and collected important historical information to write a grant application requesting monies from the Ohio History Fund.

#### COMMUNITY PLANNING INTERN **Energize Clinton County | January - May 2013** - Facilitated the testing of an online, home energy-efficiency tool, identified stakeholders, and wrote social media content for a Buy Local campaign.

## Jessica L. Sims

Ex. 6 Personal Privacy (PP)

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### PROFESSIONAL EXPERIENCE

*Virginia Field Coordinator, 2020 – Present*

Appalachian Voices, Charlottesville, VA

- Provide support for community-led groups, including call facilitation, resource sharing, campaign supplies and committee participation
- Garner large-scale grassroots support for campaigns through outreach, online action alerts, educational programming and media outreach
- Perform outreach to state legislators regarding pipeline legislation
- Represent Appalachian Voices at regulatory meetings and public speaking engagements

*Community Outreach Coordinator, 2018 – 2020, Stop the Pipelines Campaign Lead, 2019 – 2020*

Sierra Club Virginia Chapter, Richmond, VA

- Manage volunteers, volunteer teams, and interns
- Organize local outreach tabling events, and large-scale statewide community events,
- Host and promote monthly educational “Fossil Fuel Infrastructure” events, quarterly “Volunteer” nights and large-scale community events.
- Provide support for staff, local groups and their corresponding campaigns, and the Chapter’s Strategic Plans

*Office Manager, 2007 – 2018, Sales Coordinator, 2005-2007*

Vertiv (formerly Liebert Corporation) – Glen Allen, VA

- Implement yearly Capital & Expense Budgets, Accounts Payable for office
- Provide Customer support and training to 13 Sales Staff members

*Graduate Assistant, 2003-2005*

University of North Carolina at Greensboro, Art History Department – Greensboro, NC

- Provided research materials and slide inventory for lesson plans, proctoring and grading exams

### EDUCATION

*Master of Fine Arts, Studio Art, 2005*

University of North Carolina at Greensboro

*Bachelor of Fine Arts, Painting & Printmaking, 2002*

Virginia Commonwealth University, Summa Cum Laude

### OUTREACH EXPERIENCE

*Lead Volunteer, 2017 - 2018*

Chesapeake Climate Action Network – Richmond, VA

*‘River Rat’ Water Monitor, 2017 - Present*

James River Association – Richmond, VA

## Quality Assurance Quality Control

The following steps will be taken to ensure the data collected from this project is of a high quality.

PurpleAir PM monitors arrive out of the box pre-calibrated from the factory. Little maintenance is required of them in the field, and is generally limited to ensuring the devices remain plugged in, and connected to wifi, and that accumulated dust and spiderwebs do not obstruct the laser sensing mechanisms.

A checklist will be created by Appalachian Voices and distributed to grassroots partners. It will include instructions directly from PurpleAir's website describing monitor installation, steps to ensure monitors are not placed near common household sources of particulate matter, such as wood stoves, and weather proofing protocols to prevent monitors from becoming disconnected from their power source. In its quarterly review of the data, AV will notify project partners if their monitor is broadcasting and attempt to troubleshoot issues with them

Since several peer reviewed studies indicate the PurpleAir monitors routinely read PM 2.5 at levels higher than monitors using the federally referenced method, Appalachian Voices will aggregate the PM 2.5 data from these monitors, correct the data using a linear transformation outlined by ([PurpleAir PM2.5 performance across the U.S. Karoline Barkjohn and Brett Ganttt](#)) and make the data available on the Appalachian Voices website. Matthew Hepler, AV's Central Appalachian Environmental Scientist, will be responsible for transferring the data from the PurpleAir website to the AV website, and ensuring that the linear transformation has been properly applied to the PM2.5 data that is AV displays online.

In addition to PM monitors, two partner groups wish to monitor SO<sub>2</sub> and VOCs using a Falco TAC, an Ultrarae 3000 and a Multirae3000 devices. In McCoy, VA, near to propellant and explosive chemical operations at the Radford Army Ammunition Plant, Virginia Scientist Community Interface intends to combine continuous measurements with high time resolution and low chemical resolution with intermittent sampling for analyses with high chemical resolution. The Falco TAC mounted instrument will be deployed to a fixed location approximately downwind from the facility by the end of the first year of the project period. This instrument will be co-located with the weather station for continuous measurements of wind speed and total aromatic gas concentration throughout the project period. Covariance of windspeed and aromatic gasses will provide an estimate of the emissions coming from the point source of concern, in contrast to elevated regional or background concentrations, or emissions from other local point sources.

In Bristol, VA, the community group Healing Our Polluted Environment (HOPE) will also deploy a weather station in conjunction with handheld Ultrarae 3000 and Multirae 3000 sampling devices, to monitor emissions emanating from the city's landfill.

A contract will be maintained by Appalachian Voices to lease the SO<sub>2</sub> and VOC equipment to HOPE, and the Virginia Scientist Community Interface. This contract will contain provisions requiring these groups to share the data they collect with AV during the reporting period, to maintain the equipment to working standards, and to keep a log of all calibrations performed on the equipment. Virginia Scientist Community Interface will be working closely with Dr. Gabriel Isaacman Shwartz, a professor at Virginia Tech with a PhD in atmospheric chemistry. HOPE's monitoring efforts will be

supported by Dr. Dan Firth, who holds a PhD in analytical chemistry, and is retired from a career with Eastman Chemical Company.



# **Appalachian Voices**

## **Upper South and Appalachia Citizen Air Monitoring Project**

March 25, 2022

Additional List of Areas Affected by the Project

A map of all proposed monitor sites can be found [here](#).

### Kentucky

- Floyd County
- Kenton County
- Letcher County

### Pennsylvania

- Greene County
- Washington County
- Westmoreland County

### Tennessee

- Campbell County
- Claiborne County
- Grundy County
- Shelby County (Memphis)

### Virginia

- Buckingham County
- City of Bristol
- Lee County
- Montgomery County
- City of Norfolk
- Pittsylvania County
- Wise County

### West Virginia

- Boone County
- Kanawha County
- McDowell County
- Raleigh County

## Upper South and Appalachia Citizen Air Monitoring Project

Appalachian Voices  
West King Street  
Boone NC, 28607

DUNS: 081693371589  
Katie Bailey, Grants Coordinator  
434-293-6373, Katie@appvoices.org

Appalachian Voices envisions an Appalachia with healthy ecosystems and resilient local economies that allow communities to thrive. We strive to empower communities, mitigate the impacts of fossil fuel industries, and to advance economic strategies that create community wealth and sustain Appalachia's mountains, forests and waters. To achieve this, our work combines community organizing, a wide array of expertise, independent journalism, and policy advocacy.

**Set-Aside:** no set-aside

### **Partners and corresponding project locations include:**

- Appalachian Mountain Flows, Tori Satow - Keystone, WV (24868)
- Center for Coalfield Justice, Nick Hood - Washington and Greene Counties, PA (15301, 15337)
- Clearfork Community Institute, April Jarocki - Clairfield, TN (37715)
- Coal River Mountain Watch, Vernon Haltom - Raleigh County, WV (25140)
- Friends of Buckingham, Chad Oba - Buckingham County, VA (23921)
- Healing Our Polluted Environment, Dan Firth - Bristol, VA (24201)
- Institute, West Dunbar, Pinewood Planning Committee, Kathy Ferguson - Institute, WV (25112)
- Kentuckians for the Commonwealth, Lisa Abbot - Letcher, Floyd, and Kenton Counties, KY (41858, 41653, 41014)
- Memphis Community Against Pollution, Justin Pearson - Memphis, TN (38118)
- Mountain Watershed Alliance, Stacey Magda - Westmoreland County, PA (15628)
- Pittsylvania County NAACP, Elizabeth Jones - Pittsylvania County, VA (24531)
- Press Pause Coalition, Stephanie Rinaldi - Buckingham County, VA (23921)
- Sierra Club Virginia Chapter, Ann Creasy - Norfolk, VA (23507)
- Southern Appalachian Mountain Stewards, Terran Young - Wise and Lee Counties, VA (24216, 24282)
- Statewide Organizing for Community Empowerment, Austin Sauerbrei - Grundy County, TN (37356)
- University of Virginia at Wise Department of Natural Science, Dr. Teresa Brown - Wise, VA (24293)
- Virginia Scientist Community Interface, Tyler Weiglen - McCoy, VA (24060)
- Virginia Tech Department Religion and Culture, Dr. Emily Satterwhite - Elliston, VA (24087)
- Appalachian Voices will administer project in Claxton, Cumberland City, and Kingston, TN (37849, 37050, 37763)

**Air Pollutant Scope:** PM 2.5, PM 10, SO<sub>2</sub>, VOC

**Project Period:** 11/01/2022 - 10/31/2025

**Budget Summary:** EPA Funding Requested: \$118,297 Total Project Cost: \$118,297

**Short Project Description:** A citizen science based project to deploy 80+ low cost PM monitors in Environmental Justice communities across 5 states, analyze this data and make it publicly available, and to support these communities' engagement in local and regional air quality issues. In addition, project partners will will conduct SO<sub>2</sub>/ VOC monitoring in two EJ communities.

## **Section 1 - Project Summary and Approach**

### **A. Overall Project**

Leveraging our expertise in environmental science and policy, and in grassroots community organizing, Appalachian Voices (AV) proposes to purchase and install up to 84 PurpleAir outdoor PM 2.5/PM 10 wifi-connected, laser-based monitors in communities where fossil fuel infrastructure or other sources of PM emissions are present or proposed, and where air quality is believed to be impaired. We will deploy up to 10 PurpleAir indoor PM monitors in select residences according to early outdoor PM data and other factors. We will then apply a linear transformation algorithm to the PM 2.5 data generated in the method proposed in the report ([PurpleAir PM2.5 performance across the U.S. Karoline Barkjohn and Brett Gantt](#)) so that it will more accurately reflect measurements from federally referenced monitors. We will also be conducting SO<sub>2</sub> and VOC monitoring in two communities concerned with these pollutants. Data gathered by PurpleAir monitors loads automatically to the internet and is publicly available in real time. AV will also host PM and SO<sub>2</sub>/ VOC monitoring data on our website, and collaborate with researchers in the region to analyze the data for the benefit of project communities and wider public awareness.

Concurrently with data collection, AV will coordinate a series of webinars and self-published content so that grassroots partners may learn from the project findings and from one another's experiences. We will collaborate with partners to incorporate project findings into public comments for regulatory processes, such as the 2023 update of the National Ambient Air Quality Standards (NAAQS) for PM 2.5 and PM 10.

The grant will fund the purchase of PM, SO<sub>2</sub>, and VOC monitoring equipment, extension cords, wifi boosters, and weather-proofing material, limited partner expense reimbursement according to need for travel, power and wifi usage, staff time and travel expenses, and staff time for completing the reporting requirements of the project.

### **B. Project Significance**

This project seeks to investigate and address concerns of excessive particulate matter pollution in communities adjacent to one or more coal mines, coal fired power plants, fossil fuel export hubs, fly ash disposal sites, natural gas compressor stations, landfills, chemical facilities, and proposed sand and gold mines, as well as concerns over SO<sub>2</sub> and VOC being emitted from a landfill and a chemical facility. Residents of these areas complain of particulate pollution that aggravates, and/or may have contributed to, various cardiac and respiratory ailments, as well as high rates of cancer. Historically, coal operations and other industrial infrastructure are disproportionately sited in low-income areas, where a combination of exposure to industrial pollutants and poor access to early diagnostics and other healthcare services produce widespread adverse health effects and reduced life expectancy.

Our approach is centered on a citizen science project, executed with a diverse set of partners, in order to help impacted communities better understand the local presence and impacts of particulate matter, SO<sub>2</sub>, and VOC, to facilitate information exchange and shared learning among these communities, and to support local groups and individuals in engaging with the regulatory process to ensure that their concerns are addressed.

Table 1, located on the last two pages of the proposal, includes the planned location of air monitoring sites at the census tract level, alongside information about demographics, partner groups where applicable, and pollutant sources. Some census tracts may be subject to change as project planning proceeds, but we are confident that table 1 is reflective of the areas served by the project.

Much of the project will occur in coal mining communities where “fugitive dust” emanating from mines and associated infrastructure is a chief concern. In some cases, dust blows directly off of surface mines and coal stockpiles, but the more common complaint is that coal trucks serve as a vector for airborne PM. These trucks become caked with dirt, as well as coal and rock dust, while on surface mine sites. They then transport coal to processing and shipping facilities, at which point this material is deposited onto public roads where it is repeatedly whipped up with each passing vehicle, causing it to hover over and settle into residential areas. Community members report a similar impact from a coal export hub in Norfolk, VA. While not currently operational, residents are likewise concerned of such effects related to a proposed sand mine in Grundy County, TN, and a proposed gold mine in Buckingham County, VA. In Memphis TN, residents are concerned that they will be exposed to toxic particulates as fly ash is excavated from one disposal site and moved to another, both within the city.

Other locations where the project will occur are in communities burdened with power plants, natural gas compressor stations, landfills, and chemical facilities. Near a coal-fired power plant in Claxton, TN, residents have complained of fugitive dust and coal ash, and smoke from a storage silo coal fire blowing into the community. Other coal plants in Kingston and Cumberland City, TN contain coal ash landfills that also raise concerns about possible exposure. Two existing compressor stations in Pittsylvania County, VA, and one in Floyd County, KY emit toxic pollutants into the nearby community, raising concerns about respiratory impacts and long term exposure. The town of Chatham, in Pittsylvania County, VA also houses a chemical facility, the location of a March 2021 fire which produced a chemical cloud that required residents to shelter in place. The landfill in Bristol, VA emits odors and leachate that nearby residents find so noxious that those who are able frequently stay with friends and family further away from the site. Residents of Institute, WV, Covington, KY, and McCoy, VA complain of various health effects they suspect to be caused by nearby chemical operations.

## **Section 2 - Community Involvement**

### **A. Community Partnerships**

More than a dozen project partners will ‘host’ one or more monitors in their respective communities, with AV coordinating installation and maintenance, facilitating communication among partners, and providing support as needed. Data will be regularly reviewed by AV and research partners, and communicated to grassroots partners, who will in turn educate their communities of the project’s findings.

Each of our grassroots partners contributes their respective networks, knowledge of community dynamics, and local credibility to this project. Many are also knowledgeable of the science and policy of coal, gas, or other industries. Our research partners hold PhDs and other advanced degrees in environmental sciences, public health and medicine, and humanities relevant to the community and cultural contexts in which we do our work.

Appalachian Voices has expert knowledge of policies, regulations, economics, and environmental sciences related to fossil fuel industries, as well as years of community organizing experience in fossil fuel-impacted areas of Appalachia and the South. With one foot in research and policy, and the other in community organizing, we are well positioned to engage with both grassroots and research partners, and to serve as a bridge between the two.

**Table 2 - Research Partner Table**

Research Partner	Role	Expertise
Dr. Louis Martin Chatham University Pittsburgh, PA	Review and interpret data in the context of environmental justice, social movements, and Appalachian culture.	Environmental, working class, and Appalachian history
Dr. Scott Simonton, PE, PhD Marshall University Huntington, WV	Advise monitor placement and monitoring efforts in WV; assist in analysis of data with focus on WV.	Environmental and public health, with emphasis on coal mining communities.
Dr. Ellen Hahn, PhD, RN, FAAN University of Kentucky Lexington, KY	Advise monitor placement and monitoring efforts in KY; assist in analysis of data with focus on KY.	Public health, respiratory health, and community/academic partnerships.
Dr. Drew Harris, MD University of Virginia Charlottesville, VA	Assist in analysis of data with focus on Southwestern VA.	Pulmonary and respiratory health, black lung, asthma.
Dr. Teresa Brown University of Virginia at Wise Wise, VA	Host and review data from 6-8 PM monitors near coal mining and transport operations in Wise VA and the surrounding area.	Environmental Sciences, data analysis
Dr. Emily Satterwhite Virginia Tech Blacksburg, VA	Host 2-4 PM monitors near proposed natural gas compressor station in Elliston, VA. Review and interpret data in the context of environmental justice, social movements, and Appalachian culture.	Environmental justice, land rights, and contemporary Appalachian cultures.
Dr. Gabriel Isaacman-VanWertz Virginia Tech Blacksburg, VA	Process, analyze, and make publicly available the raw data resulting from PM and VOC monitoring in McCoy, VA.	Atmospheric chemistry
Dr. Dan Firth 4E Analytics Kingsport, TN	Advise and support SO <sub>2</sub> / VOC monitoring in Bristol, VA. Assist AV with project data analysis.	Analytical chemistry

## **B. Community Engagement**

Building on our staff's years of direct community engagement in the region, and through our emphasis on supporting grassroots partners with a local focus, community members living directly with the impacts of fossil fuels and other industries have been involved in the development of this proposal since January. These partners have been generous with their support and guidance, explaining local air quality concerns, directing the placement plan for monitoring equipment, and securing access to appropriate installation sites. In most cases, we have worked with and among these partner groups for many years, as is detailed in table 1.

Throughout the project, we will convene periodic webinars in order to first train partners in using monitoring equipment, and thereafter to provide data updates and space for project participants to learn from one another's local work. These webinars and other communication among partners, will afford AV continual opportunities to seek feedback and guidance from directly impacted community members.

Data and analysis will be made available to the general public via PurpleAir's online map, a project webpage hosted by Appalachian Voices, at least 5 stories published in our online newspaper, The Appalachian Voice, and reprinted in various partner publications, occasional external media engagement, and a widely promoted webinar at the project's conclusion. We will also work with partners to ensure that relevant findings are shared with regulators and other government bodies as appropriate, and incorporated into any technical comments prepared and submitted as part of permitting and enforcement actions.

## **C. Community-Based Organization Set-Aside**

N/A

## **Section 3 - Environmental Justice**

Table 1 shows demographic variables related to environmental justice for the census tracts where our monitors will be placed. Most of these sites are in low income communities with low educational attainment and high unemployment, and many are home to large minority populations. In many of these communities, chronic issues like heart disease and asthma are common. Black lung disease is at epidemic levels among coal miners throughout the region, and many coal ash workers are afflicted with rare cancers and blood disorders. These issues have been exacerbated by the COVID-19 pandemic.

Most project sites rank above the 50th percentile in the EPA PM 2.5 Environmental Justice Index in EJScreen. Much of our monitor placement will occur in areas defined as disadvantaged, according to the Council of Environmental Quality's Climate and Economic Justice Screening Tool.

## **Section 4 - Environmental Results Outcomes, Outputs and Performance Measures**

### **A. Expected Project Outputs and Outcomes**

This project will produce many outputs that are supportive of Goal 4, Objective 4.1 of EPA's Strategic Plan. With our partners, we will deploy air monitoring equipment in around two dozen

communities, the majority of which are predominantly working class, and a quarter of which have large POC populations. Project partners such as the Pittsylvania County NAACP, Institute, West Dunbar, and Pinewood SubArea Planning Committee, Memphis Community Against Pollution, and Friends of Buckingham are predominantly POC and black-led organizations, while all project partners represent a working class or cross-class membership. Raw PM data will be available in near real time via the PurpleAir web map, while the transformed PM 2.5 readings and SO<sub>2</sub>/VOC data will be updated quarterly on AV's website. Prior to the quarterly reporting requirement for this grant, AV will analyze the data, noting any evidence of nonattainment of NAAQS.

If areas of concern are identified, AV will work with community partners to alert the EPA and the appropriate state agency. Within the grant reporting, Appalachian Voices will provide all the data that was collected during the project timeframe, as well as all community uses of that data.

Community members who are impacted by similar and disparate industries will learn from one another's data, experiences, and organizing efforts via biannual webinars, annual reports, and periodic AV publications.

In the short-term, project outcomes include identification and wider public awareness of air quality issues in underserved communities, increased accessibility of data and expert analysis for impacted community members, improved understanding of air quality regulations, pollution sources, and associated health impacts among the general public, and more engagement with regulators by individuals living with impaired local air quality. The project will also impart a better understanding of local level data collection as compared to the regional data collected by federally referenced monitors.

Over the intermediate and long term, the data, analysis, community organizing, and leadership development that this project will produce can be leveraged to achieve more informed and effective permitting decisions in coal, gas, and other industries, and improved enforcement of dust and other emission standards affecting these industries.

In some cases, as in Buckingham and Montgomery County, VA, and Grundy County, TN the project will produce baseline data that can be referenced against readings produced after proposed industrial activities became active, if such activity does come to pass. In other communities, like many of the coal mining areas across the project's five state footprint, our data may disclose changes in local air quality related to the completion or closure of such operations.

Importantly, the deployment plan for the project includes many communities whose local air quality may not be reflected in the data that is produced in accordance with CAA State Implementation Plans (SIP). Thus, our project can provide valuable information for state regulators tasked with revising SIPs in the coming years, in turn resulting in reduced ambient air concentrations of PM 2.5, PM 10 and SO<sub>2</sub> in the communities and states where this project will be executed.

The ultimate goal and result of this approach, combining data collection and analysis with efforts to center and amplify the voices and leadership of historically marginalized individuals living in areas with air pollution, is to reduce instances and severity of respiratory, pulmonary, and other health conditions associated with the airborne pollutants we will be measuring.

## **B. Performance Measures and Plan**

Data from PurpleAir monitors is tracked in real time from the sensors and concurrently broadcast over the internet. It will be fairly straightforward to track the number of sensors deployed and their

locations and analyze the subsequent data. If awarded, AV will be responsible for quarterly analysis of this data on behalf of the community groups in conjunction with writing the quarterly progress reports. AV will notify community partners if any adverse trends arise or if data suggests local nonattainment of NAAQS, or other regulatory problems.. AV maintains a very close working relationship with the partners listed in this grant, so information will be shared via those networks should high concentrations of pollutants be found in any specific community.

A contract will be signed between the Bristol Landfill group Hope and as well Virginia Tech Professor Dr. Gabriel Isaacman-VanWertz, who are both asking for more complicated SO<sub>2</sub> and VOC monitoring equipment. The contract will ensure all data is shared in such a way that AV can meet all its reporting requirements.

### C. Timeline and Milestones

From January into March of this year, AV staff spoke with numerous community stakeholders, discerning that significant need, interest, and support exists for this project, and assembling our list of partners. Rooted in our expertise and with the advice of research partners, we worked with community groups to determine the proper deployment of monitoring equipment.

If awarded funds, the project period will begin on Nov 1, 2022, with the first fiscal quarter of the project focused on procurement and deployment of PM monitors for deployment across the region, and SO<sub>2</sub>/ VOC monitors for deployment in Bristol, VA. This period will also include convening community partners for a webinar covering the use and upkeep of monitoring equipment, accessing and understanding the resulting data, including a discussion of NAAQS and other data reference points. All outdoor PM monitors will be in use by Jan 31, 2023, with indoor PM monitors deployed by July, 21, 2023. SO<sub>2</sub>/ VOC monitors will be deployed in Bristol, VA by Jan 31, 2023. SO<sub>2</sub>/ VOC equipment will be deployed in McCoy, VA no later than 10-31-2023.

Over the duration of the project, we will provide quarterly reports including data analysis and community spotlight features to all partners. We will convene our partners for annual webinars in April of each project year to discuss the same, and will host an additional virtual event in October 2025, presenting our findings for the general public.

AV will issue a press release, and publish an article in the Appalachian Voice, announcing the commencement of the project no later than Nov 15, 2022, thereafter publishing articles to coincide with each annual report due to EPA. Additionally, we will publish an article and issue a press release on or around Apr 30, 2023 focused on grassroots engagement in EPA's NAAQS update for PM 2.5 and PM 10. In the preceding months, project partners will submit comments to EPA regarding this rule update. Should EPA change PM standards, partners will provide comments to state agencies in a time and manner appropriate to any SIP revision procedures.

**Table 3 - Milestone Schedule Table**

Milestone	Fiscal year 1 estimated completion date(s)	Fiscal year 2 estimated completion date(s)	Fiscal year 3 estimated completion date(s)
Deployment of outdoor PM monitors	1-31-23		



Deployment of indoor PM monitors	7-31-23		
Deployment of SO2/ VOC equipment in McCoy, VA	10-31-23		
Deployment of SO2/ VOC equipment in Bristol, VA	1-31-23		
Quarterly reports provided to EPA and project partners	1-31-23, 4-30-23, 7-31-23, 10-31-23	1-31-24, 4-30-24, 7-31-24, 10-31-24	1-31-25, 4-30-25, 7-31-25, 10-31-25
Annual reports provided to EPA and project partners	10-31-23	10-31-24	10-31-25
Webinars	1-31-23, 4-30-23, 10-31-23	10-31-24	10-15-25
Appalachian Voice articles	11-15-22, 4-30-23, 10-31-23	10-31-24	10-15-25
Partner comments submitted to EPA re: PM NAAQS rule-making	4-30-23		
Press releases issued	11-15-22, 4-30-23		10-15-25

### **Section 5 - Quality Assurance Statement**

Please see the QA/QC attachment for a description of those procedures.

### **Section 6 – Programmatic Capability and Past Performance**

#### **A. Past Performance**

Appalachian Voices was established in 1998 and has grown into an organization with over 30 employees in five offices with an annual budget of \$4 million. The organization has successfully implemented both federal and state economic development grants, including ARC POWER and GO Virginia grants, and has the experience and staffing needed to effectively manage the project. Our recent federal and non-federal funding includes:

- Appalachian Regional Commission POWER Implementation Grant - \$1.5M awarded in 2021
- GO Virginia Energy Storage and Electrification Manufacturing Jobs - \$486,000 awarded in 2021
- Just Transition Fund (private philanthropy) - awarded \$160,000 in 2021
- Appalachian Regional Commission POWER Technical Assistance Grant - \$49,000 awarded in 2019
- Appalachian Regional Commission POWER Technical Assistance Grant - \$99,000 awarded in 2017

#### **B. Reporting Requirements**

Appalachian Voices has a significant track record of meeting the requirements of grant agreements and completing reports in a timely manner. We have a strong operations and advancement team that are experienced in frequent financial and narrative reports. As referenced above, we recently received our third grant from the Appalachian Regional Commission POWER program, each of which had

a robust reporting schedule with triannual reports. We are familiar and comfortable with the reporting needs of this grant and look forward to reporting on our progress during each reporting period.

### C. Staff Expertise

This project will be primarily implemented by AV's Central Appalachian team, with support from our Tennessee and Virginia program staff. Collectively, the Central Appalachian team has 45 years of experience conducting citizen science projects, data collection and analysis, community organizing, and pursuing regulatory and legislative strategies to advance environmental justice in Appalachia. AV is frequently called upon by community members, partner organizations, journalists, and policy makers to decipher the science, politics, economics, community and environmental impacts, and regulatory enforcement of coal mining, impacts of pipelines and health impacts from fly ash.

### Section 7 - Budget

Line Item	Cost
<b>Personnel</b>	
AV 740 staff hours \$25/hr	\$18,500
VT- Gabriel Isaacman-VanWertz Professor Staff time (for SO2 and VOC)	\$806
Graduate Students (for SO2 and VOC)	\$7,660
Lab Manager (for SO2 and VOC)	\$124
<b>Total Personnel</b>	<b>\$27,090</b>
<b>Fringe Benefits</b>	
Appalachian Voices- Fringe Benefits	\$4,375
Virginia Tech Fringe Benefits	\$1,063
<b>TOTAL FRINGE BENEFITS</b>	<b>\$5,438</b>
<b>Travel</b>	
Travel expenses associated with deployment, maintenance, and community engagement. 7700 miles at 58.5 c/mi	\$4,500
<b>TOTAL TRAVEL</b>	<b>\$4,500</b>
<b>Equipment</b>	
2 SO2/ VOC monitoring units for Healing Our Polluted Environment deployment in Bristol, VA	\$20,000
Falco TLC for Virginia Scientist Community Interface deployment in McCoy, VA	\$4,940
<b>TOTAL EQUIPMENT</b>	<b>\$24,940</b>
<b>Supplies</b>	
85 outdoor PM 2.5/ PM 10 monitors	\$24,300
10 indoor PM 2.5/ PM 10 monitors	\$2,000

Additional equipment (extension cords, wifi boosters, weather-proofing for power connection as needed)	\$2,500
VT Equipment - supplies for monitoring S02 and VOC at McCoy and Bristol - rubber hoses, calibration, sensors	\$4,000
<b>TOTAL SUPPLIES</b>	<b>\$32,800</b>
<b>Contractual</b>	
Web and programming work	\$10,000
<b>TOTAL CONTRACTUAL</b>	<b>10,000</b>
<b>INDIRECT COSTS</b>	
VT indirect costs	\$7,129
AV indirect costs associated with Staff time	\$555
Tuition and Fees for VT grad student (S02 and VOCs)	\$5,845
<b>TOTAL INDIRECT COSTS</b>	<b>\$13,529</b>
<b>TOTAL FUNDING</b>	<b>\$118,297</b>
<b>TOTAL PROJECT COST</b>	<b>\$118,297</b>

### Table 1

GEOID10	Pollution Source	Percent Minority	Low Income Percent	Education Percent	Unemployment	CEQ Disadvanated	P_PM25_D2(%)( EJ INDEX)	P_CANCR_D2(%)( EJ INDEX)	County	State	Organization	Role
21133950600	Coal Mining	2.35%	61.37%	22.16%	18.27%	TRUE	54.37	51.61	Letcher County	KY	Kentuckians for the Commonwealth KY (statewide)	Host 2 Monitors
21071920300	Natural Gas	2.96%	51.16%	22.16%	8.09%	TRUE	46.68	41.92	Floyd County	KY	Kentuckians for the Commonwealth KY (statewide)	Host 1 PM monitor
47025970400	Coal Mining	0.00%	53.29%	35.86%	15.60%	TRUE	57.60	56.38	Claiborne County	Tn	Clearfork Community Institute Clairfield, TN	Host 2-3 PM monitors
47145030700	Fossil Fuel Power Plant/ Fly ash	8.64%	40.56%	13.51%	5.36%	TRUE	46.53	40.73	Roane County	Tn	Community Members	Host 2-3 PM monitors
51195931100	Coal Mining	6.64%	62.19%	23.68%	18.69%	TRUE	58.62	57.93	Wise County	Va	Southern Appalachian Mountain Stewards	Host 4-5 PM monitors
51143010700	Natural Gas	44.11%	38.87%	26.93%	4.58%	TRUE	61.88	61.52	Pittsylvania County	Va	NAACP Pittsylvania County Chapter Chatham, VA	Host 3-4 PM monitors
51121021200	Chemical Manufacturing	8.22%	21.49%	7.18%	4.38%	FALSE	15.05	19.08	Montgomery County	Va	Virginia Scientist - Community Interface	Host 4 PM monitors plus VOC and SO2
51710002700	Coal Export Terminal	82.13%	58.13%	16.63%	14.75%	TRUE	78.10	81.51	Norfolk city	Va	Sierra Club Virginia Chapter VA (statewide)	Host 2-4 PM monitors
51520020300	Landfill	9.37%	65.15%	26.74%	8.30%	TRUE	60.68	60.19	Bristol city	Va	Healing Our Polluted Environment	Host 4 PM monitors plus VOC and SO2
47001021302	Fossil Fuel Power Plant	9.58%	34.84%	12.20%	3.26%	FALSE	18.21	14.31	Anderson County	Tn	Community Members	Host 2-3 PM monitors
47161110600	Fossil Fuel Power Plant	8.33%	47.99%	19.87%	8.04%	TRUE	53.03	50.77	Stewart County	Tn	Community Members	Host 2-3 PM monitors
51029930101	Gold Mining	33.39%	41.69%	18.31%	8.15%	TRUE	61.32	61.05	Buckingham County	Va	Friends of Buckingham	Host 3-4 PM monitors
54047954503	Coal Mining	29.73%	57.11%	20.30%	9.34%	TRUE	66.82	65.16	McDowell County	WV	Appalachia Mountain Flows	Host 1-3 PM monitors
54081001200	Coal Mining	1.88%	61.77%	27.97%	9.67%	TRUE	54.55	54.50	Raleigh County	WV	Coal River Mountain	Host 5-7 PM monitors

											Watch	
51195931000	Coal Mining	2.77%	51.65%	39.33%	10.78%	TRUE	53.86	53.77	Wise County	Va	UVA wise	Host 3 PM monitors
47061955300	Sand Mining	19.81%	44.18%	23.69%	5.14%	TRUE	54.04	51.64	Grundy County	Tn	Statewide Organizing for Community Empowerment	Host 4 PM monitors
47157022600	Fly ash/Landfill	94.34%	53.26%	12.24%	5.93%	TRUE	89.05	98.34	Shelby County	Tn	Memphis Community Against Pollution	Host 3 PM monitors
42059970400	Coal Mining	3.42%	32.16%	16.17%	6.22%	FALSE	32.98	24.76	Washington County	Pa	Center for Coalfield Justice	Host 3-5 PM Monitors
21117061400	Petroleum	12.37%	39.29%	13.91%	5.40%	TRUE	43.44	43.44	Kenton County	KY		Host 2-3 PM monitors
42129808600	Coal Mining	2.89%	33.02%	8.75%	5.75%	FALSE	29.74	20.93	Westmoreland County	Pa	Mountain Watershed Association	Host 4 Monitors
54039010400	Chemical Manufacturing	63.85%	40.86%	2.73%	2.96%	FALSE	66.05	73.00	Kanawha County	WV	Institute West Dunbar Pinewood SubArea Planning Committee	Host 3-5 PM Monitors

# **Appalachian Voices**

## **Upper South and Appalachia Citizen Air Monitoring Project**

March 25, 2022

Additional List of Project Congressional Districts

### Kentucky

KY-004

KY-005

### Pennsylvania

PA-014

### Tennessee

TN-002

TN-003

TN-004

TN-007

TN-009

### Virginia

VA-003

VA-005

VA-009

### West Virginia

WV-002

WV-003

Manifest for Grant Application # GRANT13580451

Grant Application XML file (total 1):

1. GrantApplication.xml. (size 25515 bytes)

Forms Included in Zip File(total 6):

1. Form ProjectNarrativeAttachments\_1\_2-V1.2.pdf (size 16043 bytes)

2. Form SF424\_3\_0-V3.0.pdf (size 24146 bytes)

3. Form SF424A-V1.0.pdf (size 23131 bytes)

4. Form EPA4700\_4\_3\_0-V3.0.pdf (size 23014 bytes)

5. Form OtherNarrativeAttachments\_1\_2-V1.2.pdf (size 15914 bytes)

6. Form EPA\_KeyContacts\_2\_0-V2.0.pdf (size 37354 bytes)

Attachments Included in Zip File (total 6):

1. SF424\_3\_0 SF424\_3\_0-1239-Project Congressional Districts (attach to SF424).pdf application/pdf (size 26143 bytes)

2. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1234-Project Team Biographies and Resumes.pdf application/pdf (size 628247 bytes)

3. SF424\_3\_0 SF424\_3\_0-1238-List of Areas Affected by the Project.pdf application/pdf (size 35444 bytes)

4. ProjectNarrativeAttachments\_1\_2 ProjectNarrativeAttachments\_1\_2-Attachments-1237-Upper South and Appalachia Citizen Air Monitoring Project3.pdf application/pdf (size 462774 bytes)

5. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1235-ALL LOS.pdf application/pdf (size 3206964 bytes)

6. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1236-Quality Assurance Quality Control.pdf application/pdf (size 77967 bytes)